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Know all men by these presents, that _____ of the County of San Diego, State of California, for and in consideration of the sum of _____ Dollars, to _____ of the County of San Diego, State of California, the receipt of which is hereby acknowledged, have granted, sold and conveyed, and by these presents do grant, sell and convey unto the said _____ of the County of San Diego, State of California, all that certain _____

ACRES, more or less,

TO HAVE AND TO HOLD unto the said _____ of the County of San Diego, State of California, his heirs and assigns forever.

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Abstracts of Unpublished Masters' Theses Indiana State Teachers College 1936

Melton, Clifford H. *Analyses of Seven Recently-Published Junior-High-School American Histories and Eight Recently-Published Junior-High-School Geographies with Reference to the Interpenetration of the Content of Each into the Other.* August, 1935. (No. 207.) 87 pp.

PROBLEM. To discover the degree to which history subject matter is carried into the field of geography and the degree to which geography subject matter is carried into the field of history.

METHOD. The method used by the author was that of research and judgment analysis of the fifteen textbooks studied. The plan of development was threefold in nature; namely, topic study, vocabulary study, and index classification.

FINDINGS. The development of the study has shown the following facts. First, there is an unusual amount of controversy concerning the place of geography and history in the courses of study for junior-high-school students, but almost every one agrees that the two fields are in some respects closely related. Second, from the author's data, a close relationship is shown to exist between the fields of history, geography, and other social studies. Third, there seems to be a certain amount of in-

terpenetration of the subject matter of geography, history and other social studies. Fourth, the data of the tables of this thesis seem to prove that the index classification, vocabulary study, and topic study show the close interpenetration of the material of these textbooks by showing similar percentages along similar lines. Fifth, in the final stage of analysis, the material eventually leads to the author's own interpretation of the results.

French, Finley. *A Study of the Status of Mechanical Drawing in the Secondary Schools of Indiana Together with a Suggested Course of Study.* August, 1935. (No. 208.) 56 pp.

PROBLEM. This study was made with the purpose of determining the teaching of mechanical drawing in Indiana with respect to: objectives; content of courses; methods of presentation; and the compilation of a suggested course of study.

METHOD. A questionnaire was used to secure the information for this study. One hundred seventy-five questionnaires were sent out to all parts of the state. Of the 175 sent out, 122 were returned, 15 of which were unanswered. The total number of questionnaires used in this study

was 107 or sixty-one per cent of those sent out. Since these returns were from all parts of the state and from leading instructors in the field of mechanical drawing, a rather definite cross section of the work was ascertained.

FINDINGS. It was found that teachers vary greatly in their opinions on the objectives but that they grouped them under two main headings, general education and vocational preparation. In ranking the objectives, general education was ranked as objective number one more often than any other objective.

There was very little uniformity in regard to the content of courses, although there was some agreement on certain instructional topics and some agreement on the grade in which the topics were offered. However, these data showed that practically all the topics were offered in all grades. With this fact in mind, it seems that there should be some standardization and classification of the work over the state, hence the suggested course of study compiled by the writer.

Data received on methods of preparation and presentation of courses indicated great variation. One of the greatest reasons for this variation in courses was due to the fact that a high per cent of the instructors made out their own courses of study. Until an appropriate state course can be obtained, this variation is unavoidable. The suggestions included in this study are offered for any assistance they might give toward the compilation of such a state course of study.

Irregularity in the number of semester hours offered in mechanical drawing was revealed. The time ranged from one semester hour to forty-four semester hours. This affords some students greater opportunities in drawing than others, and is evidence of the need for more uniformity in industrial arts education.

Since there is lack of uniformity in all of the items checked in this study, it is evident that an excellent opportunity affords itself to those interested to organize and standardize the teaching of mechanical drawing in the State of Indiana.

Smith, Elmer L. *A Critical Study or Analysis of Rating Sheets Now in Use for*

Rating Student Teachers. August, 1935. (No. 209.) 59 pp.

PROBLEM. A critical study or analysis of rating sheets now in use for rating student teachers was made.

METHOD. The research method was followed in this study. A review of the literature in this field was made in order to find just what had been attempted up to this time. An analysis was made of 103 rating sheets now in use in the colleges and universities which are members of the North Central Association of Secondary Schools and Colleges. All these rating sheets were analyzed on the basis of eight questions.

FINDINGS. There exists some evidence that provision is being made now to measure the work of student teachers objectively. However, a large percentage of the institutions submitting rating sheets rank their student teachers by the subjective method.

There is a lack of uniformity as to what letter, word, or symbol is used to indicate letter scheme "A," "B," "C," "D," and "F" the ranking of the student teacher. The is used by more institutions than any other one scheme in ranking student teachers. There is evidence to show that agreement in this terminology is needed in order to insure justice to those being rated. The five-point scale predominated in the sheets examined.

A lack of uniformity in the number and distribution of rubrics used exists. A group of twenty-one to thirty rubrics was used more than any other one group of rubrics.

The major rubrics that predominate after combining those whose meaning seemingly was identical are: "Personal Qualities," "Professional Qualities," "Teaching Skill," "Classroom Management," "Pupil Results," and "Scholarship."

An existing need which should be met by rating sheets is the provision of a better means whereby the student teacher may be able to rate himself so that he may discover his weak and strong points.

There exists a need of provision for differentiation of techniques for evaluating the work in different subjects, grade levels, and mental levels.

Another need is that of provision for considering the teacher in all of his various

educational activities of the school and community.

Fields, William A. *A Study of the Types of Biography in the Teaching of Social Studies in High School*. August, 1935. (No. 210.) 95 pp.

PROBLEM. In this study the problem was to learn: 1. Whether high school students have a preference for either of the two types of biography and whether either is distasteful to them. 2. Whether either type of biography makes them feel better and encourages or discourages them. 3. Whether biography is adaptable to use in high school.

METHOD. A reaction test was prepared by the use of short accounts taken from the two types of biography. The first six examples were accounts that discussed the same facts. The last eight examples contained five new type accounts and three old type accounts arranged in irregular order. A thousand copies of the test were printed and given in four rural high schools, three town high schools, and two city high schools. This study was based on the indicated answers in the 924 copies that were returned. The answers were reduced to percentages and an analysis made from these.

FINDINGS. High school students expressed a preference for the old formal type of biography. They prefer the type of biography that praises rather than that which condemns.

The boys indicated a greater tendency to accept the new type than the girls.

The city students indicated the strongest tendency to accept the new type of biography; the town students indicated the second strongest tendency; the rural students indicated the least tendency.

Rural freshmen and sophomores were least open to accepting the new type biography because of inexperience and local environment.

More students indicated that they felt better after reading the old type of biography than after reading the new type. More were encouraged by the old than by the new type; the new type of biography discouraged more than it encouraged.

The method of presenting the facts has

a greater influence than the so considered undesirable facts.

Most biographies are adapted to high school use.

Belcher, Carl J. *A Study of the Evolution of the Course of Study in High School Botany*. August, 1935. (No. 211.) 48 pp.

PROBLEM. This problem was undertaken for the purpose of showing the changing tendencies of the course of study of botany at the high school level as is indicated by the textbook content analyzed over a period of about forty-two years.

METHOD. The method used in making this study was a survey of the previous studies completed in this field and an analysis of the content taken over several decades of fifteen textbooks selected. The writer then selected the eight major topics of botany and from each book listed the number of pages found under each of these topics. Then a table of percentages was calculated showing the per cent of content in each topic for each of the texts studied. These books were arranged chronologically in groups of five, and the per cent of increase or decrease of topic content from one group to the other was calculated, thus showing the tendencies in the content.

FINDINGS. There was very little indicated by the increase of introduction, it being only .56 per cent. This would merely signify the individuality of authors.

"Plant structure and physiology" was the outstanding division, making an average of 45.8 per cent of all the content. It also made a rather steady gain from the books of the earlier period to the ones of the later dates.

"Reproduction," while only making up on the average 4.87 per cent of the total content, offers a consistent gain.

"Taxonomy," probably the strongest pillar of early botany, contains on the average 16.2 per cent of all the content of the series of texts studied. The later five texts decreased over the earlier five 10.26 per cent in the content of taxonomy. Hence the tendency to break away from the technical phases in future study.

"Morphology" revealed the greatest decrease in content of this series, the decrease being 18.18 per cent. This decrease is

largely being absorbed into the unit of plant structure and physiology.

"Ecology" showed a small decrease of 3.80 per cent in the more recent books. Ecology being closely related to taxonomy decreased along with it.

"Evolution," which takes up only 2.54 per cent of all the content of these texts, seems to be gaining in the more recent books. The early group placed it at 1.62 per cent, while the last group gave 3.76 per cent. This makes a gain of 2.14 per cent.

"Economic botany" showed a gain of 11.06 per cent in content. The gain here was made largely in the last fifteen years.

There were very few general textbooks adaptable to the high school pupil written during this period in comparison to the number written in the other sciences.

According to the U. S. Bureau of Education, 1924, there are 3.84 per cent of all the pupils in the United States enrolled in high school botany.

A survey over the field showed that very little research has been done on building of botany courses of study or on the content analysis of botany texts.

Ratliff, Fred. *The Organization of a More Satisfactory and Effective Program in One-Teacher Schools in Grant County*. August, 1935. (No. 212.) 69 pp.

PROBLEM. This study was undertaken, with the cooperation of the State Department of Public Instruction, to work out plans for increasing the efficiency of the one-teacher school. Immediate attention was confined to two specific problems: first, the program of studies for a one-teacher school, and second, the daily program of a one-teacher school.

METHOD. Special schools were established in Grant County for putting into practical use tentative programs as outlined, to see what would be workable in actual practice. The plan called for a two-year program of correlation of subjects and alternation of grades. These special schools were known as demonstration schools while the other ones were known as control.

FINDINGS. The general arrangement of subjects in the block system seems to meet with most favor in the arrangement of the program. This system allows the pupil

and teacher to concentrate on some given subject during a definite period.

This type program was flexible enough to take care of any circumstances which might arise, yet was worked out so carefully that very little deviation was necessary. Practically all of the flexibility was in the first two grades.

Music and art were alternated and in connection with general exercises worked satisfactorily.

Generally speaking, one hour a day was given to arithmetic. This subject, more than any other, worked best with supervised study and individual instruction.

Reading was correlated with other subjects more than any other.

Hygiene and nature study were found to correlate quite satisfactorily.

This block program allowed more time for individual instruction. The teachers found that more work could be covered and that a more thorough review could be had in the same space of time as that allotted under the plan used by the control schools.

One of the problems of the teacher was to keep the pupils as near the same level as possible and consequently to avoid too many individual cases. It was possible under this program to make progress along this line, to study individual capacities better and thereby keep retardation to the minimum and at the same time have no so-called "cramming."

An increased desire on the part of the pupil in the mastery of skills as a means toward an end was noted in this type program.

The study periods were worked out as carefully as the recitation periods giving the teacher an opportunity to instruct pupils in the art of study which showed a marked degree of benefit in this type school.

This program, by the elimination of so many classes per day, created a larger group and a longer period in the recitation and thereby stimulated interest in class recitation.

The most serious problem in this type program was the adjustment of new pupils entering from a school in which there was no combination program.

Harris, Ralph W. *A Guide for Laboratory Work in Elementary Science in Grades 7 and 8*. August, 1935. (No. 213.) 101 pp.

PROBLEM. The problem of this paper was to present a group of experiments that are suitable for use in the instruction of general science in the rural schools and the smaller high schools. An attempt was made to keep the apparatus used in performing the experiments as simple as possible and to demonstrate the scientific principle involved in the experiment.

METHOD. As each unit of work given in the state course of study in general science was studied, a number of experiments on that unit were gathered and performed by the class. Those experiments that the pupils seemed to understand the best were kept and written into the form in which they are presented in this paper. The experiments were sent to a teacher in a rural school in Perry County who used them in teaching science in the eighth grade. Each experiment was criticized, and upon the criticisms of this teacher, the experiments were rewritten in an attempt to make them more valuable for teachers in rural schools and small high schools.

FINDINGS. This paper consists of seventy-five experiments in science suitable for use in teaching science in grades seven and eight. They are arranged to follow the units of work given in the state course of study in general science.

Wilhelmus, Horace A. *High School Scholarship, Psychological Test Rankings, and College Scholarship Indexes As Factors of Prediction of the Success of the Class of 1932 at Indiana State Teachers College*. August, 1935. (No. 214.) 36 pp.

PROBLEM. The problem of this study was to determine the relationship between college scholarship and (1) average high school achievement, (2) intelligence, and (3) scholarship for each year in college.

METHOD. The statistical method was followed in this study. The office files of the registrar and the dean of instruction were consulted; and from the records of each of four hundred fifty entering students of the fall quarter of 1928 the average high school scholarship, the intelligence

percentile ranking, and the yearly college scholarship were calculated. The entire group was broken into curricula groups for purposes of comparative study.

FINDINGS. High school scholarship and psychological test results are not reliable tools with which to predict college scholastic success.

According to rankings on the psychological test the regular college group possessed mentalities significantly higher than those possessed by students of the other groups.

Special students, as a group, had slightly higher scholarship indexes in college than students of the elementary or regular college groups in spite of the fact that the students of the special group stood lowest in high school averages and in psychological test rankings.

Eavey, J. Carter. *A Laboratory Manual Using Chemicals and Apparatus Found in the Home, on the Farm, and Locally*. August, 1935. (No. 215.) 102 pp.

PROBLEM. This study was undertaken with the thought in mind that chemistry could be successfully taught without the outlay in chemicals and apparatus that is generally thought necessary. The greatest cost in teaching chemistry is the cost of chemicals and apparatus.

METHOD. This study is unique because of the fact that nothing of a like nature has been reported in the educational literature studied. It then resolved itself into the construction of a laboratory manual using chemicals and apparatus found in the home, on the farm, and locally. The state course of study and the state adopted laboratory manuals were used as criteria to determine the experiments that were fundamental. Only those fundamental were included in the new manual. A list of thirty-four experiments was made and these experiments were constructed to use the chemicals and apparatus found in the home, on the farm, and locally.

A standard form was followed in constructing these experiments. This included the purpose, apparatus, and source of apparatus. Whenever it was necessary to construct a piece of equipment, the instructions for the construction were included in the source of apparatus.

FINDINGS. It was found that experiments could be made using chemicals and apparatus found in the home, on the farm, and locally. This proves that a course in chemistry could be offered without the outlay in chemicals and apparatus that had formerly been considered.

Even if some few things had to be purchased, the cost would not exceed seven dollars and fifty cents for ten students.

Colvin, Charles G. *A Study of the Practical Value of Latin to Men and Women in Various Occupations and Professions.* August, 1935. (No. 216.) 210 pp.

PROBLEM. The purpose of this study was to find a partial answer to various questions put to the author by his pupils regarding the value of the study of Latin in their future careers.

METHOD. Questionnaires were mailed to one thousand five hundred men and women engaged in various occupations and professions in Indiana, Illinois, and Ohio. Replies were received from two hundred teachers, one hundred medical and allied workers, one hundred housewives, seventy-eight salesmen, seventy-seven business men, seventy clerical workers, sixty-one farmers, fifty-six attorneys, thirty-eight clergymen, twenty-four unskilled laborers, twenty-four skilled laborers, thirteen engineers, eleven journalists, and seventeen in a miscellaneous group. All of these 869 replying had studied Latin for one year or more.

FINDINGS. The range of years in which those replying had studied Latin was from 1876 to 1935. The mean amount of Latin studied was 2.7 years.

Approximately two-thirds of the 869 replying studied Latin because it was a required subject.

Five hundred sixteen of the 869 recommended Latin to those preparing to enter their occupation or profession.

Approximately forty-seven per cent thought they could do as well in their occupation or profession if they had not studied Latin.

Two years was the amount of Latin recommended with the greatest frequency.

It was indicated by 75.8 per cent of the total group that the study of Latin resulted in a better understanding of English grammar.

To some small extent Latin is less a required subject than formerly.

The Report of the Classical Investigation which was published in 1924 had a marked influence upon the objectives, procedures, and methods of teaching the Latin course.

Some of the objectives of the Latin course listed as valid in the Report of the Classical Investigation have been accomplished in the teaching of Latin.

The disciplinary values of Latin are not very extensive.

The transfer values of Latin are small.

Much improvement is needed in the methods and procedures of teaching Latin. Subject matter should be enriched.

The Latin course should be so taught as to correlate more closely with English.

In order of being most interesting to the total number replying, the Latin subjects may be listed as follows: Vergil, Caesar, Cicero, Beginning Latin, and Horace.

Translation was marked as the most interesting phase of Latin by the greatest percentage of those replying and Roman government the least interesting.

All subjects listed on the questionnaire increased in percentage of those marking them most interesting after the Report of the Classical Investigation in 1924.

It was indicated by 42.8 per cent of the total group that the study of Latin resulted in making it easier to learn other foreign languages.

Latin is of most help to those engaged in medical and allied lines of work, teaching, law, and the ministry.

Some of the benefits of the study of Latin are scattered widely over the different occupations and professions.

Connette, Earle. *A Survey of the Preparation of Public School Music Teachers in State Universities, Liberal Arts Colleges, Conservatories of Music, and Teachers Colleges of the United States.* August, 1935. (No. 217.) 176 pp.

PROBLEM. The purpose of this study was to make an analysis of the curriculums provided by the four types of schools for the preparation of public school music teachers and if possible to determine the emphasis in each type.

METHOD. The 1933-1934 bulletins of twenty-four state universities, twenty-one

teachers colleges, fourteen liberal arts colleges, and eight conservatories of music were the sources of the data.

The number of schools was limited to those which offered the four-year curriculum in music education, and whose curriculums were set up to show the sequence of the courses.

The study was limited to the so-called general course in music education as against the more highly specialized curriculum for the education of instrumental teachers.

The procedure involved two steps: (1) gathering the data, and (2) analyzing and evaluating the data.

FINDINGS. There is no great amount of disagreement among the four types of schools in regard to the curriculum for the preparation of public school music teachers. If the type classification is disregarded, there is considerable disagreement between schools in regard to the preparation of public school music teachers.

With the exception of applied music, the emphasis in the music subjects in all types of schools is the same. The teachers colleges and the conservatories of music do not require as much applied music as do the state universities and liberal arts colleges.

Ear training and sight singing, harmony, methods, instruments, history, and appreciation are emphasized in all schools.

There is considerable disagreement among the schools as a whole in regard to the sequence of methods and supervised teaching. No one type of school has a common practice in this respect.

Ear training and sight singing, harmony, applied music, and chorus or orchestra are usually the first-year music subjects in all schools. Advanced sight singing, advanced harmony, applied music, chorus or orchestra, and some methods are usually the second-year music subjects. Instruments, applied music, analysis or counterpoint, and methods are usually the third-year subjects. Applied music, instruments, and methods are usually the fourth-year music subjects. This sequence is true with the types of schools, but many schools within the types disregard the sequence.

General and educational psychology, supervised teaching, principles of teaching,

introduction to teaching, and tests and measurements are the emphasized professional education subjects in all schools.

Supervised teaching is emphasized more in the teachers colleges than in the other three types of schools.

English composition, public speaking, literature, some kinds of social studies, and some kinds of science are common to all types.

Foreign languages are emphasized more in the liberal arts colleges and state universities than in the teachers colleges and conservatories of music.

All schools make allowance for the student to take a second major subject and to prepare to teach it.

Wall, Lucy. *The Home Room and Its Activity in the Secondary School*. August, 1935. (No. 218.) 76 pp.

PROBLEM. This study was undertaken with a twofold purpose: first, to determine to what extent the objectives of the home room at Gerstmeier Technical High School, Terre Haute, Indiana, measure up to the objectives set up by various authorities on the home room in secondary schools; second, to suggest plans, projects, and other activities executed at Gerstmeier with the hope they may inspire other teachers that face the same problem.

METHOD. This is largely the result of the writer's experimentation with the home room and its activities at Gerstmeier High School. In addition to this original work, the research method was employed in the careful study of various authorities on the home room. Suggestions and conferences with the teachers at Gerstmeier added many facts that were weighed and evaluated. The most constructive of these suggestions are incorporated in the thesis.

FINDINGS. 1. After three years of the writer's experimentation with the home room at Gerstmeier High School, it is believed to be one of the outstanding media to restore the closer contact of teacher and pupil that formerly existed in the one-room school.

2. The home room is more than a short period set aside for routine announcements, ticket selling, and the like.

3. In the activities of a well planned home room, the student develops the feeling that he "belongs." He assumes the attitude that the goals of his group are the same as his individual goals.

4. The backward student develops initiative and leadership in the home room that would often be impossible in the larger school group.

5. The home room with the extensive activities that are possible provides the best means to discover the student's dreams and ambitions, his home influences, his tastes in reading, friends, amusements, and his ability to work peaceably and profitably with other people.

6. There is a marked difference in the amount of work accomplished in the home rooms at Gerstmeier as well as in many other high schools. This could be greatly improved by the appointment of a general director of home room activities.

7. More time allowed in the daily program for home room work would allow an extension of its activities, and the writer believes the home room since its beginning has been one of the best means of proving that, "There is so much more to life than scholarship."

Harris, Robert. *Three Periods in the History of the Indiana State Teachers Association*. August, 1935. (No. 219.) 69 pp.

PROBLEM. It was the problem of this study to show the organization, work, and accomplishments of the Indiana State Teachers Association by comparing three periods of its history.

METHOD. This was chiefly a library subject. A thorough study was made of all available books found in the Indiana State Teachers College library. Most of the information was obtained, however, from the official journal of the Indiana State Teachers Association. The three periods studied and compared were: 1855-1865, 1890-1900, and 1925-1935.

FINDINGS. A meeting for organization purposes was held in Indianapolis in 1854. There were 178 people present. This was the beginning of the organization that enrolled 350 at the end of the first period, 3,017 at the close of the period in 1900, and nearly 15,000 in 1935. An interesting aspect of this growth in enrollment was the

increase in the number and activities of the women in the organization.

At the first meeting a constitution that has stood with few changes to the present time was adopted. The progressive measures set forth there are evidence of the foresight and ambition of those early educators.

The organization, having for its purpose the advancement of education in Indiana, arranged programs to accomplish this end. It created a journal so that more people could be reached and propaganda spread. It sponsored a reading circle for both adults and children. Many were the accomplishments of the association but none more valuable than its work in the State legislature where it sponsored many of our educational laws of today.

Lloyd, Harold A. *An Evaluation of the Summer High School Conducted by Indiana State Teachers College*. August, 1935. (No. 221.) 32 pp.

PROBLEM. This study was undertaken with the purpose of evaluating the summer high school conducted by Indiana State Teachers College from four points of view:

1. The functions of the summer school as shown by the pupils' reasons for attending;
2. Courses offered and the value of them;
3. Types of students attending summer school—fast, average, or slow;
4. How far the work of the summer school meets the needs of an enriched and progressive educational program.

METHOD. The methods used in the study were as follows: 1. Questionnaires covering the various phases of the problem were filled out by 1,100 pupils attending the summer high school for the years 1930, 1932, 1933, and 1935. The data furnished by the questionnaires were analyzed for pertinent facts. 2. A study of the works of writers on subjects related to this problem served as a basis of comparison and for the educational theories of the summer high school.

FINDINGS. The total enrollment for the four years was 1,100 students. This was divided among the years as follows, 343 in 1930, 317 in 1932, 189 in 1933, and 251 in 1935. The senior class had the largest enrollment in each of the four years. Only a

few more girls than boys attended the summer school.

The principal reasons given by the pupils for attending were to make up failure and to graduate earlier. The per cent of pupils giving each answer was 34.3 and 30.3 per cent, respectively.

A classification of the pupils indicated that 37.4 per cent were fast, 34.2 were average, and 27.8 were slow.

The importance of the summer school to the pupils attending was indicated by the fact that 596 of them compared to 140 would have gone to school even if they could have secured desirable work for the summer.

A study of the question as to the activities in which these pupils would have engaged if they were denied the opportunity of attending summer schools brought out the fact that 47.5 per cent would have worked. However, from the years 1932 to 1935, the number of pupils who would have worked, if deprived of the summer school decreased from 53.1 per cent to 42.2 per cent. A study of all the facts suggests that many pupils would have done little of value for themselves during the summer if not in school.

The program of the summer high school was so arranged as to offer the pupil an opportunity of continuing his regular work previously begun or enriching his work by taking additional or different subjects. The number enrolled in summer school should not be so largely confined to those wishing to make up failures or to graduate earlier. An enrichment of the present program should be made to provide greater opportunity for work in music, summer sports, school gardens, field trips, plays and pageants, and many other subjects that would appeal to many as the means of enjoying as well as profiting by summer school attendance.

Powell, Wesley H. *Pedagogical Research in Chemistry, 1925-35*. August, 1935. (No. 222.) 135 pp.

PURPOSE. The purpose of this study was to determine the amount and nature of pedagogical research in chemistry for a ten-year period 1925-1935.

METHOD. The problem was attacked in two ways: (1) a survey was made of studies

made for higher degrees, published or unpublished, and those made by research divisions of colleges, universities, and city school systems for a five-year period 1928-1933; and (2) a survey was made of pedagogical research in chemistry found in periodical literature 1925-1935.

In the first survey, the studies were obtained from the United States Office of Education Bulletins, *Bibliographies of Research Studies in Education, 1928-1933*. The extent to which these studies were made available in periodical literature to science teachers and other interested individuals was ascertained. It was determined whether each of the studies had been published in magazine literature the year of its completion or for a two-year period following. The studies were classified according to types and the number of studies devoted to each type was determined.

In the second survey, an examination was made of all issues of *School Science and Mathematics* and *The Journal of Chemical Education* for a ten-year period 1925-1935, in order to find all research studies devoted to chemistry instruction. Studies found in other periodicals were also used. The number of studies used was ninety-three. A comprehensive, annotated bibliography of these studies was prepared. The studies were classified and the amount of research devoted to the various problems of chemistry instruction was ascertained. A comparison was made of the findings of the major types of research studies.

FINDINGS. One-hundred twenty studies were made for higher degrees and by research divisions of colleges, universities, and city school systems.

A great majority of the studies was sponsored by the universities.

Seventy-four per cent of the studies were made for the doctor's degree and ten per cent for the master's degree.

Only twenty per cent of the studies were published in any magazine.

The studies were classified and ranked according to the number of studies devoted to each type. The first five types of studies were: (1) tests and measurements; (2) analyses of chemistry laboratory manuals and textbooks; (3) classroom methods of teaching chemistry; (4)

relationship of high school and college chemistry; and (5) state surveys of chemistry teaching.

The first five types of studies found in magazine literature classified and ranked in the same way were: (1) tests and measurements; (2) relationship of high school and college chemistry; (3) state surveys of chemistry instruction; (4) classroom teaching; and (5) enriched teaching.

The fact that four of the first five types of studies found in magazine literature are also included in the first five types of studies of the first group indicates along what lines and the extent to which pedagogical research in chemistry has been directed during the past ten years.

A chapter in the study was devoted to the contributions of research in magazine literature 1925-1935, to each of the five major types. Though these chapters point out many inadequacies of secondary chemistry and science instruction, as revealed by research workers during the past ten years, they also show that much progress has been made and that we have begun to attack the problems of pedagogical science in a scientific way.

Jones, Edith I. *A Comparison of the Scholastic Records of Students from Large and Small High Schools as Revealed by a Study of the English and Intelligence Examinations Given to Freshmen and to Seniors at the Indiana State Teachers College in 1931, 1932, 1933, 1934, and 1935.* August, 1935. (No. 223.) 47 pp.

PROBLEM. This study was undertaken with a threefold purpose: first, to find out what difference there is in the records of the English tests at Indiana State Teachers College of graduates from small high schools and large high schools in the state of Indiana; second, to find out if there is any relationship between the size of the high school and the intelligence percentile ranks obtained in freshmen tests; and third, to suggest how the students of both large and small high schools might secure equal opportunities from their instruction.

METHOD. The research method was followed in the study. The English and intelligence percentile scores of 2,150 students were secured from the English department and

the office of the dean of instruction at Indiana State Teachers College, respectively. These scores were compared with the size of the high schools from which the students came. Separate comparisons of freshmen, seniors, boys, girls, two-year students, and four-year students from the large and small high schools were made. The English and intelligence scores of both large and small high schools were correlated.

FINDINGS. This survey of 2,150 students revealed, in every instance, a slight superiority of the large high school over the small high school.

The arithmetic mean of the intelligence percentiles was very close to that of the English test percentiles. The large high schools were slightly superior in both instances.

The girls of large high schools were slightly superior in their English test scores to those of small high schools.

There was no difference shown between the English percentile means of the quartiles of the high schools in the entire study and the English percentile means in the halves of the high schools in the entire study. This study failed to prove any greater difference in the extreme quartiles than was shown in the previous study.

The correlation of the English and intelligence percentile ranks for the large high schools was .69 and for the small .49. These correlations according to Tiegs were "rather high."

The majority of four-year students came from the large high schools and the two-year students from the small high schools.

Morrison, Ernest R. *The Underlying Principles and Facts Which Have Been Basic in Shaping United States History.* August, 1935. (No. 224.) 75 pp.

PROBLEM. The object of this research was to show how United States history can be made a more interesting, vital, and correlated study and to determine and to evaluate a list of principles and facts which might be used as the basis of a correlated course in United States history.

METHOD. The research method was used in the study. In determining the list of principles and facts for evaluation, five sources were used: first, courses of study in United States history were examined for

objectives and facts; second, one textbook was read and an attempt was made to discover the underlying fact or principle of each historical event; third, several books and pamphlets on "how to teach and study history" were examined; fourth, magazine articles and books of philosophical nature dealing with United States history were examined; fifth, some of the items were the results of the author's own personal opinions.

Two procedures were used in evaluating the list of principles and facts. First, the items were submitted in the form of a questionnaire to four groups of people: undergraduates with history majors, elementary teachers of intermediate and grammar grades, high school social studies teachers, and college or university instructors. Second, six textbooks were carefully read and measured to see how many inches were devoted to each one of the individual items.

FINDINGS. Items concerning inventions received a very high rank by each of the four groups but were placed near the middle by the evaluation of the texts.

The item concerning education was ranked very high by each of the four groups. The evaluation of the texts placed this item near the middle.

On the whole the items concerning the constitution were ranked high by the four groups. The evaluation of the texts placed these items rather low.

All of the groups except the college instructor group placed items concerning colonies and colonization near the middle of the list. The college instructors agreed with the evaluation of the texts by ranking these items high.

The evaluation by use of the texts placed all items concerning territories high except the one on the ordinance of 1787. The college instructor group placed the items concerning "connection between a nation's history and the history of its territories" and "the ordinance of 1787" near the top. These and all other items were ranked near the bottom of the list by the other three groups. All four groups placed the item "territorial expansion caused the mistreatment of foreign countries" at the bottom of the list.

Items dealing with the evils of capitalism and political graft were placed near the middle of the evaluation of each of the four groups. Very little space was devoted to these items in the texts.

The evaluation of each of the four groups placed the item concerning the effects of geography very high. The evaluation of the texts placed this item very low.

Carlson, V. Sydney. *A Study of the Vocational and Prevocational Offerings of the Morocco High School with Recommendations for Enrichment.* August, 1935. (No. 225.) 94 pp.

PROBLEM. This study was undertaken in order to determine what vocational or prevocational activities should be added to the program of studies of the Morocco High School.

METHOD. The survey method was followed in the study. A study was made of the program of studies of the school for the years of 1934-35 and 1935-36. The students of the school during the year 1934-35 were presented with a questionnaire in order to determine their first and second choices of occupations, the amount of experience in the occupation they chose, and the sources of their occupational knowledge which had been obtained in school. A survey was made of the withdrawn students by means of the same questionnaire. Six months later another questionnaire was presented to the same students in order to obtain their first, second, and third choices from a group of five curriculums, which consisted of a group of college preparatory courses, a home economics group, an industrial arts group, an agriculture group, and a commerce group. A study was made of the occupations of the men and women who were members of the classes from 1918 to 1923 inclusive. A survey was made of the occupations followed in the township supporting the school and an analysis was made of the predominate industry, agriculture.

FINDINGS. It was found that the school was offering a program of studies which consisted of a college preparatory curriculum, a commerce curriculum, a finding course consisting of general shop work for boys and home economics for girls, and

music and art courses open to all students. Vocational guidance was fused in the two finding courses. All other vocational work was given by projecting the subject matter of the courses into occupations.

The students in school preferred the professional and commercial vocations with college preparatory and commercial courses although more than sixty-four per cent of the girls in each grade gave home economics as first or second curricular choice. Of the withdrawn students, the preferred choices were agriculture and industrial arts. The occupation most frequently followed by the men from the classes of 1918 to 1923 was agriculture which was also the predominating industry in the township. Of the women in the classes from 1918 to 1923, 82.6 per cent had become homemakers.

CONCLUSIONS. It was determined that the students were choosing their occupations from those in which the present program of studies was applicable. It was recommended that courses in home economics, industrial arts, and agriculture be added in order to provide prevocational activities in the occupations to which these courses are applicable and that a program of vocational guidance be organized in order to assist the students in choosing their vocations more wisely than they are now choosing them.

Neyhouse, Dorothy Ayahr. *A Comparison of the Theory of Education Found in the PHILOSOPHICAL DICTIONARY and LETTERS TO FREDERICK THE GREAT OF PRUSSIA of Voltaire and the Modern Theory of Education.* June, 1936. (No. 226.) 42 pp.

PROBLEM. This study was undertaken to determine whether Voltaire, in his *Philosophical Dictionary* and *Letters* propounded any doctrines and ideals of education and whether they were comparable to those of modern educators.

METHOD. The research method was followed in this study. Notes were made concerning the *Philosophical Dictionary*, *Letters*, and books of Voltaire; a history of education; and biographies of Voltaire. These notes were divided into the three chapter headings: A Short Biography of Voltaire, A Short History of Education, and A Comparison of the Theories of Voltaire as Found in the *Philosophical Dictionary*

and *Letters to Frederick the Great of Prussia* of Voltaire and Modern Educators in which the data were recorded.

FINDINGS. Voltaire's entire life from his schooldays to his death was devoted to directing an almost forgotten people to more humane and intelligent standards of living. Because he was frail himself he was able to visualize the distress of others. He gave himself unceasingly and unsparingly to educating the masses of France. He was in a small way successful and predicted an enlightened world for his followers.

The origin of education is traced to time before Christ: the time of the early Greeks and Romans. Thence it struggled through early Christianity, the Middle Ages, gaining momentum, to more modern times. Many of our present theories and practices are simply old principles revived and couched in our modern terms. During the last four decades or since 1900, education has made its greatest strides in advancement. Throughout the evolution of education, philosophy has played a large and important part. Educators philosophized before they practiced. Education today is the product of that procedure and shows with what success earlier educators employed philosophy. The old education is ever new and the new has its roots deep in the historical foundations of our fathers.

The comparison of Voltaire's so-called old ideas of education to those of such men in the field of modern education as John Dewey, William E. Kilpatrick, E. L. Thorndike, A. I. Gates, and William James reveals his complete agreement on such subjects as education, moral conduct, citizenship, interest, and discipline. Voltaire's ideas are found in his writings not as a teacher or speaker, but simply as one who wishes to impart information. These modern educators have greater scope at their command for their philosophy: speaking and teaching, as well as writing. They are permitted to put their ideas into operation to prove their practicality; whereas Voltaire was restricted entirely to the pen. Thus Voltaire takes his place among other great men as writer, philosopher, and educator.

Higgins, Francis Vickroy. *An Analysis of Errors as Revealed by the Iowa Placement Examination in Mathematics*. June, 1936. (No. 227.) 106 pp.

PROBLEM. This study was undertaken with the purpose of: first, determining the types of errors made by entering college students; second, determining the causes for these errors; and third, determining the differences, if any, between responses of men and women.

METHOD. The examination papers of 256 students beginning their mathematical work at the Indiana State Teachers College were analyzed. First, the distribution of errors on each item and the specific errors on each item were analyzed. These errors were then classified into types and a comparison was made between the responses given by the men and women.

FINDINGS. The students involved in the study showed a deplorable weakness in the fundamentals of arithmetic and algebra. They were especially weak in their knowledge of fractions, per cent, powers, roots, and expressing words in symbols. Certain types of errors were made repeatedly. The greatest number of errors was due to lack of comprehension of the problem on the part of the students. The next greatest number of errors were errors involving fundamental operations.

The men involved in the study showed better mathematical training than did the women; however, the women in this study were largely students on elementary courses and probably had not the interest in mathematical achievement that the most of the men students had. Very little difference, if any, was found between the types of errors made by the men and the women. The men seemed more likely to make careless errors than the women. The women seemed less likely than the men to attempt an item they did not understand.

In general, the findings of the study seem to indicate that many things learned by students in high school mathematics are not retained on entering college, or they may indicate that a number of items on this test involve knowledge of skills and terms in which high school students do not receive adequate training.

Young Wilbur. *Pupil Progress in One-Room Rural Schools Versus Pupil Progress*

in Consolidated Schools. June, 1936. (No. 228.) 30 pp.

PROBLEM. This study was undertaken with a twofold purpose: first, to determine the progress of rural school pupils versus the progress of consolidated school pupils in spelling, language, reading, history, arithmetic, and the totals of all scores; and second, to compare the ages of rural school pupils with the ages of consolidated school pupils.

SELECTION OF MATERIAL. Scores of five hundred eighth grade rural school pupils and scores of five hundred eighth grade consolidated school pupils who took the Indiana New Type Tests in 1931-32 formed the data for this study. These scores were obtained from the superintendents of Jackson, Lawrence, Martin, Pike, and Ripley counties in Southern Indiana.

METHOD. The average of the December tests and the average of the April tests for each subject, the average of the total scores for each semester, and the age of each pupil were recorded on the data cards.

The arithmetic mean was used as a measure of central tendency. After finding the mean, the standard deviation was found, then the standard error of the mean was found. In comparing the means of rural school pupils with those of consolidated school pupils, the standard error of the difference was found. The value obtained from the standard error of the difference was then divided into the difference between the two means. The significance of the result was then interpreted by the means of a standard error table.

FINDINGS. There may have been some difference in the intelligence between the two groups, but there were no data available on this subject. On the basis of the data of this subject, the following conclusions can be drawn.

In spelling, there is no true difference between the achievements of the two groups.

In language there is no true difference between the achievements of the two groups.

In reading, there is a true difference between the achievements of the two groups in favor of the consolidated schools.

In history there is a true difference between the achievements of the two groups in favor of the consolidated schools.

In arithmetic there is no true difference between the achievements of the two groups.

There is no true difference between the achievements of the two groups in the totals of all scores.

There is no true difference between the ages of the two groups.

Walters, H. G. *A Report Card for Use in the Elementary Schools of Parke County to Accompany the Indiana Elementary and High School Cumulative Record Form.* June, 1936. (No. 229.) 89 pp.

PROBLEM. The purpose of this study was to make a report card that would offer a practical method: first, of accompanying the Indiana Elementary and High School Cumulative Record Form; second, of offering constructive and suggestive help to the parent, the child, and the teacher; third, of rating all phases of growth and development, such as, social, physical, emotional, and intellectual; and, fourth, of administration so that too much time is not expected from a teacher.

METHOD. The plan used in developing the report card was as follows:

1. A survey of previous studies together with a review of the literature pertaining to the report cards was made.

2. An analysis of certain elements in report cards which had been recently adopted was made.

3. A questionnaire to get the opinion of teachers in the field of active teaching as to what elements they considered should be on a report card was given to one hundred fifty teachers attending Indiana State Teachers College in the summer of 1935. The same questionnaire was given to one hundred fifty teachers of Parke County. Comparisons were drawn.

4. A second questionnaire, growing out of the results of the answers made to two of the questions in the first questionnaire, was presented to one hundred selected teachers attending Indiana State Teachers College in the summer of 1935. This questionnaire was presented for a twofold purpose: first of getting teachers to evaluate lists of specific activities under differ-

ent subject heads; and second, to have teachers choose the traits that are necessary to make a desirable marking system.

5. A personal letter was sent to five hundred parents of children who attend schools in Parke County to get the parents' reaction regarding report cards. The parents were asked to list the items which they considered should be included on a report card from the school to the home.

6. A report card incorporating the results of these activities was made.

FINDINGS. A reasonable report card should contain the following features: first, a courteous and suggestive note to the parents stating the general purpose of the card and explaining the need for cooperation of parents and teachers in educational matters; second, provision for rating pupils in at least, scholarship, citizenship, and health; third, a method of diagnosing the marks which are given; fourth, an explanation of the marking system used; fifth, provision for individual differences in working capacity of the pupils; sixth, space for comments by the teachers and the parents; and seventh, miscellaneous items including attendance record, times tardy, name of pupil, name of school, year of issue, and space for the teacher's and the principal's signatures.

Rush, John J. *A Study of the Effects of Education on Superstition.* June, 1936. (No. 230.) 43 pp.

PROBLEM. The particular purpose of this study was to investigate the extent to which education has influenced superstitious beliefs.

METHOD. The questionnaire method was used in the study. The questionnaire were sent to seven different schools in Illinois and Indiana, where two hundred sixth and two hundred twelfth grade pupils filled them out. The adult group (two hundred) was selected at random in the same two states at various adult organizations. Six hundred questionnaires were collected and tabulated.

FINDINGS. Some of the major conclusions that may be derived from this study are as follows:

1. Twelfth-grade pupils are less superstitious than sixth-grade pupils.

2. College students are less superstitious than either twelfth- or sixth-grade pupils.

3. Older people are more superstitious than younger people.

4. The old tradition that the negro race is more superstitious than the white race is not very well founded, since there is very little difference between the two as regards superstitions.

5. Women are more superstitious than men.

6. Older people have heard a larger percentage of the superstitions used in this study than younger people.

7. Although a large percentage of people do not believe many of the superstitions, they use them rather freely.

8. Education has eliminated superstitious belief to a very noticeable extent.

Hallett, Clifford G. *A Study Concerning Awards and Punishments from the Students' Viewpoint*. June, 1936. (No. 231.) 66 pp.

PROBLEM. This study was undertaken with a fourfold purpose: first, to obtain students' viewpoints concerning what awards should be given for high scholastic or extra-curricular attainments; second, students' opinions on punishment, including methods, the offenses for which they think there should be some form of punishment, where, when, and to what degree punishment should be given, and their reaction to past punishment; third, the type of teacher for which students have the most respect; and, fourth, teacher characteristics which have a tendency to cause pupils to be mischievous.

METHOD. A four-page questionnaire was checked by 1,324 students from grades seven to twelve, inclusive, in three types of schools. These schools included five township schools, three city schools, and the Training School of the Indiana State Teachers College.

FINDINGS. Students desire awards for high scholastic or extra-curricular attainments.

All schools included in this study make awards for high scholastic or for extra-curricular attainments.

Competition for extra-curricular awards is keener than competition for scholastic awards.

Students do not believe in the elimina-

tion of punishment; however, they desire the least painful type of punishment.

Students think that punishment should be given in private, mildly, and only after an investigation of the child's motives.

Most students indicated that the punishment which they had received in the past was just, about right, and caused them to resolve to have no further occasion for punishment.

The best liked teacher is the one who tries to lead and who presents his subject in such an interesting manner that there is no thought of mischief.

Students dislike teachers who are the nagging type, who lack interest in pupils, who are poor teachers, who are nervous, and who are partial.

Very slight differences of opinion were noted between different sexes and grade levels.

Hendricks, Paul L. *Differences Between Good and Poor Students Chosen on the Basis of Achievement in their First Term in Indiana State Teachers College*. June, 1936. (No. 232.) 56 pp.

PROBLEM. This study is an attempt to find the differences between entering freshmen making good records and those making poor records in their first quarter in Indiana State Teachers College. This study deals with differences in the school, environment, home environment, and the social environment of students prior to their entrance to college.

METHOD. The results of this study are based upon a questionnaire report from one hundred good students and one hundred poor students. The good students were those who made high scores on the English and psychological examination and made high grades in classwork. The poor students were those who ranked low on each of the above named items. The only students used in this study were those who entered Indiana State Teachers College for their first time in the fall of 1935. Throughout the study the good students are referred to as Group I and the poor students as Group II.

FINDINGS. The most significant differences as revealed by the statistical measures used, are as follows:

1. Group I held more offices in high school than Group II.

2. Group I failed fewer subjects in high school than Group II.

3. Group I had a higher average on the scholastic and personality rating sheet than Group II.

4. Group I participated in more social activities than Group II.

5. Group I spent more time in debating than Group II.

6. Group I spent fewer hours per week in high school athletics than Group II.

7. Group I skipped more grades in the elementary schools than Group II.

8. Group I repeated fewer grades in the elementary school than Group II.

9. Group I had larger home libraries than Group II.

To set forth other differences between the two groups which are not as significant as the ones previously stated, we might say that probably:

1. Group I spent more time working on a school paper in high school than Group II.

2. Group I was absent fewer days in high school than Group II.

3. Group I came from larger high schools than Group II.

4. Group I participated in fewer recreations than Group II.

5. Group I attended more elementary schools than Group II.

Differences found on all other items were negligible.

Lyda, Wesley John. *An Experimental Study of Moral Concepts in the Secondary School*. June, 1936. (No. 233.) 92 pp.

PROBLEM. The writer undertook this study that he might determine in some degree how high school freshmen and seniors differ in their concepts of those moral traits which secondary school teachers consider most important for high school students.

METHOD. To ascertain the most important moral traits which high school students should exemplify, a questionnaire was sent to all of the junior and senior high school teachers of Terre Haute, Indiana. These teachers were asked to list in order of importance what they consider to be the ten most important moral traits for high school pupils. To determine the final list

of the ten most important moral traits for high school students in order of their importance, the writer employed the technique of telescoping and weighting the various traits.

To solve the second part of the problem of this study—how freshmen and seniors differ in their moral concepts—the writer's own morality test and rating scale were given to one hundred freshmen and one hundred seniors of the Garfield High School of Terre Haute.

FINDINGS. The secondary school teachers of Terre Haute considered the following ten moral traits as being the ten most important moral traits for high school pupils: honesty, self-control, altruism, dependability, loyalty, industry, cooperativeness, courteousness, reverence, and tolerance.

High school seniors consistently rated themselves higher on the ten moral traits of this study than did the freshmen, but the freshmen made higher scores on all the most important moral traits except dependability, cooperativeness, altruism, and tolerance.

Finally, there is a greater consistency of self-evaluation on the moral traits of this study and performance on the morality test among seniors than freshmen.

Fontaine, Herman W. *A Socio-Economic Study of the Marital Status of Teachers in Terre Haute and Vigo County*. June, 1936. (No. 234.) 24 pp.

PROBLEM. This study was undertaken in order to discover what the socio-economic situation of married teachers in Terre Haute and Vigo County was as indicated by irrefutable data. This involved such points as the family, the occupation of the husband or wife, the relation between the family and the occupation, the relation between the families of homes with one parent employed and those with both being employed, reasons for married women being employed, and the opinions of the husbands of employed women.

METHOD. In order to obtain a more accurate supply of data, the writer refrained from the use of the questionnaire and, in its place, made a direct study of the situation. By the utilization of all available

pertinent files of the county and city superintendents, the county and city records, and personal interviews with people actually involved in the question, the writer is of the opinion that a comparatively valid amount of data has been gathered.

FINDINGS. A total of 173 cases were used in the final analysis of this study. This included eighty-four married women teachers and eighty-nine married men teachers.

The study showed that in 5.94 per cent of the cases where the married woman teaches there is no other means of support. In this connection, it also showed that 42.83 per cent of the occupations of husbands of teachers are "white collar" positions and that 69.44 per cent of these were the husbands of teachers in the city system. On the other hand, it showed that 93.75 per cent of the laborers were husbands of teachers in rural schools.

The study also showed that in 86.36 per cent of the cases, where the husband was a teacher, the wife was a housewife. The data showed that in 81.81 per cent of the cases, where the wife was a housewife, there were children while this was true in only twenty-five per cent of the cases where the wife was employed.

The final point discovered in the study was that the husbands of employed women do not approve of the employment of their wives.

Routh, Rhessa A. *A Study of the Personal and Professional Qualifications of School Trustees in Indiana*. June, 1936. (No. 235.) 100 pp.

PROBLEM. This study was undertaken to solve the following problems:

1. What traits are to be found in the best township trustees, city school board members, and town school board members?
2. What traits are to be found in the least desirable township trustees, the least desirable city and town school board members?

METHOD. The questionnaire method was used in the study. Questionnaires were sent to all (251) school superintendents listed in the *Indiana School Directory* for 1936. Sixty-nine of the ninety-two county superintendents responded; seventy-seven of the ninety-four city superintendents responded; and forty-three of the sixty-five town

superintendents responded. The answers to the items in the questionnaire were tabulated under the headings "Personal Data" and "Professional Data."

FINDINGS. School trustees, including township trustees, town and city school board members, reach their maximum age efficiency in the late forties. The fifties show a decline in efficiency.

High school is the minimum level of education for the most desirable school trustees.

Agricultural, business, and professional occupations are the main source of school trustees considered in this study.

The most desirable school trustees are honest, cooperative, progressive, and intelligent.

The best school trustees are liberal in their views.

The most desirable school trustees do not practice nepotism and are free from political influences.

The most desirable school trustees are public minded.

Few school trustees ever consent to a proposition just because they know a superintendent favors it.

Most of the best and poorest school trustees are free from fraternal and denominational influences.

The fact that a school trustee has children in school during his term of office has little to do with his relative desirability as a school trustee.

Boruff, Oscar. *The Life and Contribution of Barnabas C. Hobbs to Indiana Education*. June, 1936. (No. 236.) 104 pp.

PROBLEM. This study was undertaken with a threefold purpose: first, to find the facts relating to the life and contributions of Barnabas C. Hobbs to Indiana Education; second, to organize the facts into a treatise of one volume thus making the facts more easily accessible; and, third, to show that the educational system of Indiana as it is today, is due, partially, to the influence of Barnabas C. Hobbs.

METHOD. The historical method of research was followed in assembling and making available for use a large body of material relating to the life and influence of Barnabas C. Hobbs upon Indiana Education.

FINDINGS. The study reveals that Barnabas C. Hobbs lived from 1815 to 1892, the period during which Indiana was developing her state school system of today; that this state system could not have been realized without the foresight and tireless efforts in its behalf of certain individuals who, associated together by common interests and purposes, fought for its establishment; that Barnabas C. Hobbs, as a member of the Indiana Teachers Association from 1856 to 1880 was one of the most active of these individuals; and that the present school system of Indiana is more largely due to the efforts and influence of this organization than to any other. In this connection the study reveals that Hobbs served on various committees in this body, and made many convincing addresses the object of which was to secure needed legislation, contributory in its effects to the present state controlled system of free education.

The study shows that Hobbs was principal of the Bloomingdale Academy for twenty-one years, which academy was an educational center for a wide range of territory and provided normal training for teachers prior to 1870.

The study also reveals that Barnabas C. Hobbs was a strong advocate for the establishment of a state normal school and struggled for the enactment of the law of 1865 which provided for its establishment. Previous to the enactment of this law he had been active in teachers' institute work for years. Following its enactment he was a member of the board of trustees of the institution from 1866 until 1892, rendering invaluable service toward its success.

For two years from 1866 to 1868, Mr. Hobbs served as first president of Earlham College. This study reveals that to his able administration of this school its present success is very largely due.

From 1868 to 1870 Mr. Hobbs was state superintendent of public instruction. The study shows that in this capacity he was able to see the graduation plan and a uniform course of study adopted in the schools; to see the cause of negro education advanced; to see the German language introduced in the curriculum under stated conditions; and to see a law enacted making taxation for common schools uniform.

He was instrumental in seeing the law enacted providing for the county superintendency.

Ausherman, Paul F. *The Establishing of Kwalwasser-Dykema Music Test Norms for the Negro Race.* June, 1936. (No. 237.) 32 pp.

PROBLEM. This study was made to establish Kwalwasser-Dykema music test norms for the negro race, and to compare these norms with the norms of the white race.

METHOD. The ten K-D music tests were given to two thousand negro students in grades five to twelve inclusive. The following localities were represented: Louisville, Kentucky; Henderson, Kentucky; Evansville, Indiana; and Terre Haute, Indiana.

FINDINGS. Norms were established for each of the ten tests on the following three levels: fifth and sixth grades; seventh, eighth, and ninth grades; and tenth, eleventh, and twelfth grades. Norms based on the results of the whole group were also constructed for each of the ten tests and for the total scores of the ten tests. The later norms were for the purpose of comparison with the similarly constructed norms of the white race.

The results of the tests as given to the negro race show that the boys are apparently superior to the girls in each of the groups, the standard error of the difference being in favor of the males in twenty-three of thirty-three cases calculated.

The grades obtained on seven of ten of these tests show a positive correlation with the age and grade of the subject.

In comparing the negro and the white races at the twenty-fifth, fiftieth, and seventy-fifth percentile points the whites were found superior in all but four of the thirty-three instances and then the negro percentiles were but slightly higher than the white percentiles.

Russell, Hosea R. *History and Present Status of Pupil Participation in School Government.* June, 1936. (No. 238.) 115 pp.

PROBLEM. This study was undertaken with a threefold purpose: first, to trace the history of pupil participation in school government; second, to make an accurate appraisal of the present status of pupil par-

ticipation; and, third, to trace the trends in pupil participation in school government and thus learn what changes or new developments may be expected in the future.

METHOD. The library research method was used to solve the first part of the problem. Every available book that dealt wholly or in part with this topic was consulted. Likewise, all available articles in educational periodicals were studied and analyzed. In order to supplement the data obtained by the library research method, and to secure data on the present status and trends in pupil participation in school government, the questionnaire method was used. Three hundred ninety-five questionnaires were sent to secondary schools in forty-six different states.

FINDINGS. The following conclusions were reached as a result of this study:

1. Pupil participation in school government is not a new idea.

2. Pupil participation in school government can be justified on the basis of a broad interpretation of the aims of education.

3. Exceptional is the high school today in which participation in government and management in some degree do not exist.

4. Pupil participation offers a splendid opportunity of teaching citizenship through practice; is a means of training for the assumption of duties and responsibilities of adult life; establishes a better understanding and spirit between the faculty and pupils, and develops a good school spirit in general.

5. There must be a realization of the need for pupil participation by both faculty and pupils. The way for its adoption must be carefully prepared.

6. A plan to be effective must be a simple one, adapted to local needs.

7. Better discipline ought not be the primary purpose of pupil participation. It should come as a by-product of participation.

8. Wide variation exists in the types of government organizations that are in use and the activities in which they engage.

9. It is an almost uniform practice for powers, rights, and privileges of the government organization to be set forth in a constitution.

10. A large majority of the schools

studied reported the use of a formal plan of pupil participation.

11. A large majority of the replies to the questionnaires reported that pupil participation is functioning successfully.

12. The student council plan was mentioned most frequently as the type of pupil participation organization that was being used.

13. A wide range in the number of members composing pupil participation bodies was reported.

14. The home room was reported as the basis for the selection of pupil governing bodies in a majority of the schools that were studied. Selection by the school at large ranked second.

15. Good conduct ranked first as a qualification for members of pupil participation bodies.

16. A large majority reported that faculty advisers were appointed by the principal.

17. It was reported by a large majority that the principal has the veto power over all acts of the governing body.

Schauss, Mabel. *A Comparative Study of Practical Scientific Knowledge Possessed by Rural and City Children*. June, 1936. (No. 239.) 66 pp.

PROBLEM. This study was undertaken to gain a solution to the following questions:

1. Does environment play any part in the knowledge and learning capacities in various subject fields?

2. What subject or subjects would the country environment most influence?

3. Does environment influence the measure of intelligence possessed by an individual?

METHOD. The research method was followed in the study. A science test of 156 questions was compiled by the writer, designed to ascertain the amount of practical scientific knowledge a child derives from his environment. One hundred eighty-seven country children and two hundred thirty-six city children in the nine-B grade were given the test. The study was made in rural and city school systems of Vanderburgh and Posey Counties, Indiana.

FINDINGS. The country groups have a superior rating on the biological section of

the science test, regardless of intelligence quotients, the greatest superiority being shown in the biology and agriculture divisions.

The city group ranked highest on the physical science items but the significant ratio was too low to give reliability to the outcome.

The miscellaneous section of the science test was predominantly in favor of the country group.

The results of the science test as a whole showed that the country group ranked highest.

The city groups had the highest intelligence quotients.

The majority of parents of the country groups are engaged in some agricultural pursuit.

The majority of the parents of the city groups are engaged in some manufacturing or industrial pursuit.

The majority of the children are content in their home environments.

The study preferences of both city and country children are similar.

Both city and country groups of children have comparable leisure time interests.

Smith, Alfred P. *A Comparative Study of Industrial Arts Students and College Course Students at Indiana State Teachers College*. June, 1936. (No. 240.) 37 pp.

PROBLEM. This study was made in order to determine the comparative scholastic rank of industrial arts majors and regular high school majors, and also to compare the coefficients of correlation between the scholarship index and percentile rank on the freshman mental test for the two groups.

METHOD. The data were gathered from the records in the office of the registrar and the office of the dean of instruction. These data were then analyzed according to the usual statistical procedure. Comparisons were made of the records of students in subjects, as follows: 138 in all subjects; 138 in education; 101 in English; 41 in mathematics; and 83 in science. The groups were compared on the basis of mean scholarship index and relative variability. Coefficients of correlation between scholarship index and percentile rank on the

freshman mental test were found for each group.

FINDINGS. Analysis of the data reveal that the college course or regular high school group ranks higher in mean scholarship index in all comparisons than does the industrial arts group. The means of scholarship index, by subject; figures for the industrial arts group first, are: all subjects, 59.3 and 63.1; education, 52.3 and 62.1; English, 39.9 and 54.1; mathematics, 51.5 and 60.8; science, 44.4 and 66.43.

The chances that the college course group will rank higher in scholarship index than the industrial arts group, are 100 in 100, except in the comparison in all subjects, when the chances are 99 in 100.

In the comparison on the basis of relative variability, the college course group is less variable. It is 84.85 per cent as variable as the industrial arts group in education; 81.46 per cent in English; 76.81 per cent in mathematics; and 61.1 per cent in science.

The coefficients of correlation between scholarship index and percentile rank on the freshman mental test for the two groups are nearly the same; being $.379 \pm .049$ for the industrial arts group, and $.369 \pm .049$ for the college course group. The slight difference between the two r 's is not a significant one, neither are the r 's of any value as tools of prediction.

Hoffhaus, Edwin H. *Relation of Science Teaching to Pupils' Reading Activities*. June, 1936. (No. 241.) 60 pp.

PROBLEM. This study was undertaken to answer the question: What relation is there between the science taught in our rural high schools and the reading activities of the pupils? To solve this problem, it was thought necessary to answer the following questions: (1) What magazines and newspapers do high school pupils in rural districts of Indiana read? (2) Do they read articles dealing with scientific topics? (3) If they read scientific articles, in what branches of science are they most interested? (4) With what frequency do scientific articles appear in magazines and newspapers most frequently read by high school pupils and how much space is devoted to them? (5) What science courses are most commonly taken by high school pupils?

METHOD. A questionnaire was given to 1,027 senior high school students in rural high schools of Indiana. The questionnaire was filled out by the students of fifteen schools located in eight different counties. In most cases the response of the entire enrollment was obtained; in a few instances, due to administrative reasons, this was not possible.

An analysis was made of the fifteen magazines and two newspapers which were reported as most frequently read by the students.

FINDINGS. After tabulation and analysis of the questionnaire was made, the following conclusions were drawn:

1. High school students in rural districts of Indiana read a relatively large number of magazines and newspapers.

2. A large per cent of the students read some of the scientific articles found in newspapers and magazines.

3. Boys in general prefer scientific articles in the field of physical sciences. They are especially interested in articles dealing with topics in physics.

4. Girls prefer articles in the field of biological sciences; health articles are of greatest interest to them.

5. The number of science articles found in non-scientific magazines and newspapers varies greatly in different issues of the same periodical.

6. An average of about seven per cent of all articles in newspapers and non-scientific magazines analyzed in this study were devoted to scientific topics.

7. Not counting the articles given to agriculture, a greater number of science articles in newspapers and general reading magazines are devoted to physical science than to biological science; however, health articles appear most frequently in this type of reading matter.

8. The scientific magazines commonly read by high school pupils are devoted chiefly to the type of science which they represent.

Nesler, Millage E. *A Study to Determine the Factors Which Influence High School Pupils in Their Attitude Toward Literature*. June, 1936. (No. 242.) 54 pp.

PROBLEM. This study was undertaken with the purpose of finding the reasons

why high school pupils like or dislike literature. It was assumed that with this knowledge English teachers might be able to create a condition that would be more favorable to the enjoyment of the subject by eliminating some of the objectionable features that stand in the way of literary appreciation.

METHOD. The questionnaire method was used in the study. Five hundred questionnaires were distributed to high school juniors and seniors in Sullivan, Vigo, Parke, Montgomery, and Fountain Counties. The answers to these questionnaires were tabulated and classified under the heading of boys and girls and according to those who liked literature and those who did not.

FINDINGS. Twenty-seven per cent of the boys and thirty per cent of the girls said that they disliked literature.

One hundred nine pupils said that English was their favorite subject; 154 said that the English teacher was their favorite instructor.

Sixty-eight per cent of the pupils thought the material used in school was less interesting than that found outside; thirty-two per cent thought school selections were just as interesting.

The majority of both boys and girls read more than ten novels during the year, but on the average the boys read more than the girls.

Forty-five per cent disliked to memorize poetry.

Forty-eight per cent disliked to make reports on outside reading.

Fifty per cent of the pupils had fiction libraries in their homes, varying from ten to more than a hundred volumes. Of these pupils eighty per cent of the boys and ninety-two per cent of the girls liked literature.

Eighty-one per cent thought that selections were often worn out in class.

Thirty-three per cent of the fathers and twenty-one per cent of the mothers did little or no reading. If one or both of the parents read, the chances are five to one that the children will enjoy reading; but if neither of the parents reads, the chances are only three to one that children will enjoy reading.

Seventy per cent said that their parents encouraged reading, and of these sixteen per cent disliked reading; thirty per cent of those whose parents did not encourage them to read disliked to do so.

Boys ranked the *American Magazine* and the girls ranked *McCall's* as the magazine most frequently received at home and also as those most frequently read.

Girls ranked as their favorite authors: novelists, Porter; poet, Riley; essayist, Emerson; short-story, O. Henry; dramatist, Shakespeare. Boys ranked as their favorite authors: novelist, Grey; poet, Longfellow; essayist, Emerson; short-story writer, O. Henry; dramatist, Shakespeare.

Boys preferred adventure stories, love stories, and animal stories in the order named; and girls preferred love stories, mystery or adventure, and animal stories in that sequence.

Pupils liked an average amount of description, both juvenile and adult characters, stories of the present, and a large amount of conversation.

Types of literature rank as follows for boys: novels, short stories, essays, and prose plays. For girls the ranking is: novels, short-stories, prose plays or poetry, and essays.

Thirteen per cent of the pupils were unable to participate in vicarious experiences. Four per cent were not sympathetic toward the characters in a story. Nine per cent were incapable of forming mental pictures as they read the story.

Ninety-one per cent said that poetry was difficult for them.

Causes of difficulty were listed by boys as syntax, classical allusions, dialect, and vocabulary. They were listed by girls as dialect, classical allusions, vocabulary, and syntax.

Methods of study were chosen as follows by the boys: moving picture version, reading and explanation by the teacher in class, reading and discussing in class by pupils, and reading without further responsibility; by girls as, moving picture version, reading and explanation by the teacher in class, and reading without further responsibility.

Ways of spending leisure time were ranked as follows for boys: sports, games, dates, movies, reading, and hobbies; by

girls as, sports, movies, games, and hobbies.

Hall, Clyde. *A Survey to Determine the Need for Supervision of Instruction in the Rural Elementary Schools of Polk County, Florida*. June, 1936. (No. 243.) 57 pp.

PROBLEM. This study was undertaken to determine the need for supervision in the rural schools of Polk County, Florida. The purpose was to find out the conditions that exist in the rural schools, to compare the findings with the norms of the entire country, and to make proper suggestions for betterment.

METHOD. The survey method was used in the study. The author made personal visits to all the thirteen schools included in the survey. About one half day was spent with the principal, teachers, and pupils of each school. Ample time was taken to secure data on teacher training and experience, and supervisory practices employed by the principals, and to give standardized tests in intelligence, arithmetic, reading and language usage to pupils in grades 3-A, 4-A, and 5-A.

FINDINGS. All children in the thirteen schools, when considered as a group, are six months over age chronologically for grade. This is not true of all schools. In a few of the schools the chronological grouping is approximately normal. Mentally the group is two and one-half months under age. The arithmetic and reading achievement ages are six months and three months, respectively, under age. There is a great overlapping in chronological, mental, and achievement ages from grade to grade. There are pupils in each grade who chronologically, mentally, or by achievement, belong in a grade higher or lower than they are now in. In language usage there are only three schools that are up to the norm. The entire group is up to the norm in intelligence and is achieving in arithmetic and reading as well as the country as a whole. Those who have the lower I. Q.'s are seemingly achieving better than those with higher I. Q.'s. There seems to be a tendency for dull pupils to make a greater effort than the brighter and it also seems that the teachers are giving greater attention to the slower pupils than to the brighter ones.

Seven of the principals are college graduates, four have had two years in college, one has had one year, and one has had no training above the high school. On an average the principals have had ten years of teaching experience; only one is teaching his first year. Four schools have teachers other than principals who have had no college training. One school has all college graduates. The average for the thirteen schools is just a little more than one year. On an average the teachers have had plenty experience teaching.

There is no classroom supervision. All principals have full days' teaching. Eight principals require informal lesson plans or lesson outlines and five do not. All teachers follow daily programs. Nearly all teachers and principals feel the need of supervision. Two or three principals seem to have a wrong opinion of what real supervision is and what its function is.

Acher, James D. *A Study of 103 Problem Children in the Terre Haute City Schools*. June, 1936. (No. 244.) 109 pp.

PROBLEM. This study was undertaken in an effort to determine what factors in the home and the school contribute to the making of the problem child in Terre Haute and to suggest some solutions for these shortcomings.

METHOD. The individual case study method was followed. The data were collected by personal conferences with the teachers and school officials and by visits to the homes. A careful sampling from the third, fourth, and fifth grades of ten different city schools was used. Problem children were referred to the investigator by the teachers of the selected grades. One hundred twenty cases were reported and of these one hundred three were used as the basis for this study. In collecting data on the homes, a standardized home rating chart, the Sims Socio-Economic Home Rating Chart, was used in addition to a home rating chart devised by the writer. The data collected from the schools and homes were analyzed and classified into statistical tables from which conclusions were drawn.

FINDINGS. Of the problem children studied, 60.4 per cent were over age accord-

ing to grade and 9.7 per cent were under age.

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There were twenty girls and eighty boys found to be problem children.

Fifty-three and three-tenths per cent of the children studied had grades averaging D or lower.

Fifty per cent of the children had I. Q.'s of 75 or less. Twenty had I. Q.'s ranging from 92 to 110.

In association and cooperation with other pupils, 48.5 per cent of the children studied were rated either poor or very poor.

Of those studied, 55.7 per cent of the problem children rated poor or very poor in cooperation with the teachers.

In integration with the school program, 95.2 per cent rated poor or very poor.

Forty and seven-tenths per cent of the children were in wretched physical condition.

No successful classification could be made on the basis of mental health due to lack of knowledge on the part of the teachers of the subject of mental hygiene and to lack of knowledge of each particular child's mental problems.

Defective heredity was found in 51.4 per cent of the cases.

On the Sims Home Rating Scale, the average for the problem child's home was 5.52 with a standard deviation of 2.7, while the average for the unrated home was 10.86, standard deviation, 7.5.

The education of parents appeared to be about the same in problem homes as in unclassified homes.

There was about the same amount of reading material in problem homes as in unclassified homes.

The data show that the homes of problem children are not much more congested than the homes of unclassified children.

There was a tendency for problem children to develop in the homes of unskilled laborers.

Forty-one and forty-four hundredths per cent of these problem children came from homes characterized by uncongeniality.

Of the parents interviewed, 56.9 per cent had either poor or no attitudes and ideas on the subject of their children's difficulties at school.

Seventy-five and six-tenths per cent of the parents interviewed were unable to understand the child's problems.

Eighty-four and one-tenth per cent of the parents interviewed had done very little or absolutely nothing toward helping the child solve his problems.

In the writer's opinion, the major causes of maladjustments were: (1) personality difficulties; (2) low mentality; and, (3) poor home conditions.

There was a coefficient of correlation of .47 between the I. Q.'s and the scores made on the Sims Home Rating Charts.

There was no relationship found between teachers' ratings and the I. Q.'s. A coefficient of correlation, .42, was found between the teachers' ratings and the four points on the home rating scale devised by the writer.

The teachers contacted, while very much aware of the maladjustments of the pupils, were totally unprepared to deal with the problem of adjusting them to their school environment.

There was a lack of contacts discovered between the school and the home.

There was also found a remarkable lack of flexibility in the curricula of the schools studied.

Miller, Ralph G. *Clay County North of Eel River, Including All of Washington and Cass Townships as a High School Corporation with Natural Boundaries*. June, 1936. (No. 245.) 42 pp.

PROBLEM. The purpose of this study is to discover and suggest in what manner greater educational efficiency than now exists can come through further consolidation of small educational units. The problem is: Would a high school corporation having Clay County north of Eel River and including all of Washington and Cass Townships as the included area, with Brazil as center, have desirable boundaries, and be of a desirable size for a school unit; would the consolidation of the existing units give the students better educational advantages than the present system? Related problems discussed are: (1) relationship of assessed valuations and tax rates; (2) providing for social integration; (3) would consolidation permit richer curriculum; (4) adequacy of present equip-

ment; (5) present subject combinations and student-teacher ratios; (6) transportation time involved after consolidation; (7) studies of the township system from standpoint of economy; and (8) estimated cost of consolidation as compared with present costs.

METHOD. The legal boundaries of the area stated were found to nearly approach natural and mercantile boundaries. The legal boundaries were used, since they were established.

Data was received from the principals of Ashboro, Cory, Bowling Green, Staunton, and Van Buren High Schools. These data included enrollment, faculty and teaching load, curriculum, and classroom and school equipment. Information regarding tax rates, present costs, and assessed valuations was then gathered at the office of the county superintendent of the Clay County schools.

FINDINGS. Study of the data pointed to these findings and conclusions:

1. Present legal boundaries so nearly approach natural lines, change of established lines would be impractical.

2. Proposed corporation approaches what Cubberley and Butterworth would consider an ideal corporation.

3. Existing taxes are unevenly divided because of the small taxing units.

4. This corporation is favorable to social integration.

5. Consolidation would provide a richer curriculum.

6. The small schools lack adequate equipment.

7. Smaller schools have low student-teacher ratio.

8. Many teachers required to teach three or four subjects reduced teacher efficiency.

9. The good roads of Clay County would permit transportation of students in minimum time.

10. The township unit is less economical than larger units.

11. Consolidation operation would cost less than operation at present.

Williams, Marcus H. *A Study of Certain Comparable Data Concerning Salaries of Principals and Coaches in City, Town,*

and Township High Schools of Indiana for the Years, 1930-31 and 1934-35, June, 1936. (No. 246.) 178 pp.

PROBLEM. The purpose of this investigation was to determine by a comparative study the salaries of high school principals and coaches for the two periods 1930-31 and 1934-35. In this study the year 1930-31 is illustrative of the high and the year 1934-35 of the low in salaries of Indiana.

METHOD. The research method was followed in this study. The data were gathered from the "High School Principal's Reports," which are filed at the office of the State Department of Public Instruction, Indianapolis, Indiana.

Using the *Indiana School Directory* for 1934-35 as a guide, the schools were classified by city, town, and township and the salaries were compared. Data were collected from the reports in regard to the following questions: name of school, name of county; enrollment; salary received; type of school; years of experience; weeks of training; name of college where training was received; kind of degree received and the year.

The data were presented by means of frequency tables. Medians, first and third quartiles, and quartile deviations were used to show central tendencies and dispersal.

FINDINGS. Principals were paid more than coaches in all types of schools. The differences between median salaries of the principal and the coach were fairly constant. The range in 1930-31 was from \$557 in town schools, to \$581 in township, and \$646, in the city schools. The range was greater in 1934-35, there being a difference of \$419 in the township, to \$451 in the town, and to \$633 in the city schools. The principal's median salary for the state as a whole dropped eleven per cent more than that of the coach.

As enrollment increased the salaries of the principal and the coach increased. The median high school in Indiana had 111 pupils and the median salary was \$1,647, while that of the coach was \$1,239.

The principal's state median for years of experience exceeded that of the coach by 10.8 years and that state median salary by \$408.

The median principal of the state had 187 weeks of training and the coach had

159.6 weeks. There was a range of 2.1 weeks of training in all three classes of schools for the principal and \$952 in median salary; while the range for coaches was 3.9 weeks training and \$687 in salary. The township coaches exceeded the city coaches by 1.8 weeks of training, but the city coaches received a greater salary by \$687.

In this study of 579 principals, 1.4 per cent had no degree; 47.3 per cent had a bachelor's degree; 50.4 per cent had a master's degree; and 0.9 per cent had a doctor's degree; while twenty-nine coaches, or five per cent, had no degree; 89.2 per cent had a bachelor's degree; and 5.8 per cent held a master's degree. There were five principals but no coaches in the state holding Ph. D. degrees.

Comparing training institutions of all Indiana high school principals, 27.7 per cent were trained in teachers colleges; 45.0 per cent in state universities; and 27.3 per cent in liberal arts colleges. For coaches, 26.1 per cent were trained in teachers colleges; 22.5 per cent in state universities; and 51.4 per cent in liberal arts colleges.

The coach received the greatest drop in each section, receiving a 3.1 per cent greater drop in the northern section, a 1.6 per cent in the central section, a 2.9 per cent greater drop in the southern section.

Summerville, William F. *A Study of Scholarships Offered to Secondary School Graduates by Colleges and Universities.* June, 1936. (No. 247.) 76 pp.

PROBLEM. This study was undertaken with a threefold purpose: first, to determine the possibility of a high school graduate receiving a scholarship in a college or university; second, to analyze and classify the facts pertaining to the scholarships that are now available; and, third, to compare the scholarships given in the state of Indiana with the total number of scholarships studied.

METHOD. The research method was followed in the study. Two hundred two questionnaires were sent to colleges and universities located principally in Indiana and the surrounding states. However, one or two schools from each state were included. One hundred twenty-six returns were received. All of these responses were ana-

lyzed, classified, and the results placed in tabular form.

FINDINGS. A total of 7,603 scholarships awarded by sixty-six colleges and universities was recorded. These revealed the following outstanding facts:

1. Colleges and universities are donors of 45 per cent of scholarships and states are donors of 34.9 per cent.

2. Approximately ninety-seven per cent are awarded to either men or women.

3. The per cent of the scholarships having a value under \$75 is 40.1, that for scholarships from \$75 to \$149 is 28.4, and for those from \$150 up is 31.5.

4. Seventy-three per cent of scholarships are tenable for one year, and twenty-seven per cent are renewable.

5. Seventy-seven per cent were paid by credit on tuition or fees, and 2.6 per cent required rendering service.

6. On the basis of frequency of mention of various items considered in awarding scholarships, high scholastic standing, financial need, character, leadership, personality, and promise of future usefulness comprise seventy-seven per cent of the items considered. High scholarship was considered more frequently than any other item.

7. Recommendations from high school principals exceed those of all other individuals combined.

8. Selections are made by a committee in the case of sixty-seven per cent of scholarships, by the college president in twelve per cent, and the state commissioner of education in 11.7 per cent.

9. Twelve of thirty-three schools report that scholarships are lost by ten to forty per cent of the holders.

An analysis of data concerning 1,806 scholarships awarded by fifteen colleges in Indiana revealed the following facts.

1. Seventy-six per cent of all scholarships range in value from \$50 to \$74. Only nine per cent are above \$150 in value as compared with thirty-one per cent of those

4. Eighty-eight per cent are restricted to counties.

Foltz, Bertha. *A Study of How the Lighting of the Schools of Clinton Township, Vermillion County Compare with the Standards Set by the American Engineering Standards Committee*. June, 1936. (No. 248.) 35 pp.

PROBLEM. This study was undertaken with the purpose of determining how the lighting conditions of the schoolrooms of Clinton Township, Vermillion County, compared with the standards set by the American Engineering Standards Committee.

METHOD. In order to arrive at a satisfactory conclusion on the problem previously stated, the light was measured in all the schoolrooms in Clinton Township, Vermillion County, by means of a light meter.

In order to ascertain the range of light intensity required for ease for reading, the light sensitive kit was used. One hundred ninety-five pupils were examined. This group was taken as typical of all the school groups.

Tables were compiled from the data obtained.

FINDINGS. The tests show that during daylight hours, ample light exists near windows, but that the intensity falls off sharply toward the interior of the room.

In most cases the light was more than the standard requirements, 12-8 foot-candles, but by controlling it near the windows, the seats toward the interior of the rooms and farthest from the windows were deficient in ample light supply.

The teacher's desk was often placed near a window. This made for better illumination for the teacher, but it was hard on the children's eyes as their attention was often directed to that spot and they were forced to face the bright, glaring light.

In the bilaterally lighted rooms, the light in that part of the room farthest from the windows was as deficient as in the unilaterally lighted rooms.

No provision seemed to have been made for the left-handed pupils or any other special sight cases.

The natural lighting for the different rooms was inconsistent, that is, the light varied from a high intensity to a lower intensity as one moved toward the breather wall of the room. Even the introduction of artificial light was insufficient to overcome this inconsistency.

Bowen, Donald C. *The Preparation of the Commercial Teacher*. June, 1936. (No. 249.) 82 pp.

PROBLEM. The purpose of this study was to determine the standards required and curriculums offered by state teachers colleges for the preparation of commercial teachers in the United States. The evolution of the demand for commercial teachers was traced.

METHOD. Historical research was used for the material for the first section on this historical background of commercial teacher preparation. All available literature on commercial education was read in magazine articles, monographs, business education textbooks, and the proceedings of the National Education Association from 1870 to 1934. Statistical research was used in examining all state teachers college catalogs offering training for commercial teachers and determining the modern practices and trends.

FINDINGS. There is great variance of opinion regarding the courses a prospective commercial teacher should take.

Ideas about the importance of the social business group are not new; they are merely more prominent than heretofore.

The controversy over the practical and cultural values in commercial education is still in progress.

Many leaders in business education have varied opinions about how the subjects of the business group should be taught. The great diversity in curricular content and requirements indicates that nothing has been decided definitely regarding this question.

Many state teachers colleges are undecided as to when the various subjects of the commercial curriculum should be introduced.

Education study and progress in the social-business group of subjects is growing. Economics, commercial law, and commercial geography are increasing in importance in the commercial teacher training curriculum.

Radmacher, T. F. *The Educational Value of 4-H Club Work in Knox County*. June, 1936. (No. 250.) 56 pp.

PROBLEM. The purpose of this study was to determine how 4-H Club activities have benefitted the participants in an educational way and to make suggestions, if possible, for their improvement.

METHOD. The questionnaire method was followed in the study. The answers of 408 persons, each above the age of eleven years, were tabulated. These data were arranged in tables with appropriate discussion.

FINDINGS. Not one individual said that club work was not profitable.

Club work has been a value to both sexes in their choices of occupations. The median age for making a choice of an occupation was 17.9 years which was lower than that made by another investigator of boys and girls taken as a whole. Contact with vocational teachers influenced 10.1 per cent to choose their present occupation.

With farming conditions as they are today 44.8 per cent of the males have chosen farming as an occupation and 54.8 per cent of these say that they are now engaged in their life's work. More than fifty per cent of the males yet in school have either chosen farming as an occupation or an occupation closely allied to it.

It is significant that only fourteen members out of ninety-seven dropped club work because of lack of interest.

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In the bilaterally lighted rooms, the light in that part of the room farthest from the windows was as deficient as in the unilaterally lighted rooms.

Adequate artificial lighting is needed every day to supplement natural daylight. Most of the school rooms were supplied with artificial light of three suspension direct fixtures containing 60-watt globes, operated manually.

No provision seemed to have been made for the left-handed pupils or any other special sight cases.

The natural lighting for the different rooms was inconsistent, that is, the light varied from a high intensity to a lower intensity as one moved toward the breather wall of the room. Even the introduction of artificial light was insufficient to overcome this inconsistency.

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The controversy over the practical and cultural values in commercial education is still in progress.

Many leaders in business education have varied opinions about how the subjects of the business group should be taught. The great diversity in curricular content and requirements indicates that nothing has been decided definitely regarding this question.

Business educators have always considered practical business experience as one of the most important parts of the education of the prospective business teacher.

Standards for courses in practice teaching are irregular.

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FINDINGS. Not one individual said that club work has not been profitable.

Club work has been a value to both sexes in their choices of occupations. The median age for making a choice of an occupation was 17.9 years which was lower than that made by another investigator of boys and girls taken as a whole. Contact with vocational teachers influenced 10.1 per cent to choose their present occupation.

With farming conditions as they are today 44.8 per cent of the males have chosen farming as an occupation and 54.8 per cent of these say that they are now engaged in their life's work. More than fifty per cent of the males yet in school have either chosen farming as an occupation or an occupation closely allied to it.

It is significant that only fourteen members out of ninety-seven dropped club work because of lack of interest.

Two hundred and seventy-four members chose vocational work in high school after having participated in club work.

Values received from club work that are important in life are: "ability to make friends," "ambition to learn," "neatness," "judgment," "self-reliance," and "dependability."

Leadership ability has been developed in 56.6 per cent of the participants. Some of the members have acted as teachers in showing friends and neighbors improved methods of doing things pertaining to farm life.

Some suggestions that should be given consideration are:

1. More participation with the county as a unit.
2. More recreation and social times.
3. More junior leaders.
4. Meetings orderly, regularly, and on time.
5. County club fair annually with open exhibit.
6. Limit age in different years of same project.
7. Contact with club leader more often.
8. Visit other clubs.

Rinsch, Albert E. *An Analysis of World History Textbooks for High Schools to Determine Modern Trends*. June, 1936. (No. 251.) 60 pp.

PROBLEM. The purpose of this study was to analyze world history textbooks for high schools as to teaching aids, maps, illustrations and subject matter, to determine modern trends and to see what progress, if any, has been made toward placing emphasis on these factors.

METHOD. The research method was followed in this study. Eleven world history textbooks for high school published between the dates of 1874 and 1933 were selected and divided into three groups on the basis of their date of publication. The various number of pages for each of the different parts of the eleven books were counted. Maps in all of the world history textbooks were also counted and classified according to number, color, size, and kind. All illustrations in each of the eleven world history textbooks were also counted and classified according to number, color, size, and kind. Finally, the pages of subject matter were counted and placed under fourteen headings.

FINDINGS. The proportion of space given to preface, foreword, etc., varied from 2.6 per cent to 12.9 per cent. The average for Group I was 6.2 per cent, for Group II was 5.3 per cent, and for Group III was 4.1 per cent.

The average proportion of space given to teaching aids for Group I was 4.1 per cent, for Group II, 4.3 per cent, and for Group III, 9.7 per cent. The average percentage of pages of the whole book devoted to maps for Group I was 3.8 per cent, for Group II, 6.8 per cent, and for Group III, 5.9 per cent.

The total pages of illustrations varied from 24 to 210. The percentage of pages of illustrations to total pages of the book was 9 per cent for Group I, 15.2 per cent for Group II, and 19.3 per cent for Group III.

Printed pages in the body of the book varied from 406 to 659. The proportion of space given to printed material was 77 per cent for Group I, 68.4 per cent for Group II, and 61 per cent for Group III.

A study of maps revealed these facts:

The number of maps in the books ranged from twenty-four to eighty-four, the average being 48.2.

The proportion of colored maps to black-and-white in Group I was twice as great as in Group III.

The average percentage of political maps found in Group I was 54.7 per cent, in Group II, 48.3 per cent, and in Group III, 49.8 per cent.

The average percentage of maps dealing with war and conquest in recent textbooks was 22.2 per cent, while maps dealing with religious, economic, social, and commercial phases included only 3.1 per cent, 1.8 per cent, and 5.8 per cent, respectively.

A study of illustrations revealed these facts:

Group I contained no colored illustrations, Group II contained eight, and Group III only six.

Group III contained the highest number of illustrations as well as the greatest number of pages.

Pictures relating to war and conquest were numerous although decreasing from 15.7 per cent for Group I to 11.1 per cent for Group III.

Percentage of illustrations emphasizing industry and economics is twice as great in textbooks in Group III as those in Group I.

A study of the subject matter revealed these facts:

Amount of space devoted to war and conquest ranged from 27.4 per cent for older publications to 24.9 per cent for recent publications.

Amount of space given to government declined about 25.0 per cent, with recently published texts.

Amount of space given to science and invention, literature, commerce and industry, and peace and internationalism increased with the later publications.

Downing, Burlin F. *Club Work in the High School*. June, 1936. (No. 252.) 34 pp.

PROBLEM. This study was undertaken with the following purpose in mind: the advisability of making clubs compulsory in the high school. Will the fact they are made compulsory kill the purpose for which clubs were originated? Will it be a better plan to let the students decide whether or not they will join a club?

METHOD. The research method was followed in the study. Questionnaires were filled out by 460 Brazil High School students. Questionnaires were filled out by 146 teachers and principals from Indiana schools and also from neighboring states. The writer received ideas and opinions from Brazil teachers. Many authors and books were read which gave the author much help.

FINDINGS. Eighteen clubs were formed in the Brazil Junior High School and membership was made compulsory. This was found to be very unsuccessful. Out of 460 students questioned, 197 thought clubs should be compulsory, 231 thought they should not be compulsory, and 26 thought the student should be left to decide for himself.

Three hundred twenty-one students said they got no benefit from being a member in a club which they were compelled to join.

Out of the total of 146 teachers and principals who filled out questionnaires only six reported membership in their schools as being compulsory.

Although 124 teachers and principals thought the students should belong to at least one club, they said this membership should come about as a result of education in some manner and in a way as to make

the student see that there was a need for him to be a club member.

Clubs should not be compulsory but a matter of enjoyment and a way to spend leisure time profitably.

Authors agreed that in theory all students should belong to a high school club, but in practice it is seldom possible.

Briggs, Harry E., *Tentative Pre-class Testing Program in Junior High School Physical Education*. June, 1936. (No. 254.) 105 pp.

PROBLEM. In physical education classes where a change of clothing is required, a pre-class program is necessary to afford a free play period for the ambitious pupil. The individual needs of the pupil should be met and the work should be attractive. It is common practice to give no supervision to the pre-class period.

It is the purpose of this study to provide a tentative program for the seventh, eighth, and ninth grades in physical education classwork, meeting the demands for activity in the individual free play time preceding the regular class lesson. The material presented should provide the teacher with a fund of suggestions from which he can draw and shape his own program.

METHOD. A study of recent literature relating to tests and measurements in physical education revealed a great lack of uniformity of terms, and hence, conceptions of the function of various sorts of tests. The changing emphasis from gymnastics and calisthenics to games and sports is in part responsible for the very striking changes that have taken place in the testing program. A survey was made of recent tests applicable in part or whole to the pre-class period. From this survey, and from suggestions obtained from current textbooks, were formulated plans for this pre-class testing program. The materials were derived from recent publications on this topic and from results of application of this program in junior and senior high schools in past years.

THE PROGRAM. The year's work was divided into three seasons for convenience of administration and for adaptation of game fundamentals and competitive individual

sports. Fall, winter, and spring seasons are natural divisions of physical education work. This division offers the opportunity to apply the material progressively to the grade for which it is adapted. Also, with this division, the program is applicable to schools with and without the equipped gymnasium.

About 270 activities were used, divided about ninety to the grade and thirty to the season. The events and standards chosen are not too hard or too easy for the junior high school pupil. They were taken from all types of games and branches of sports used in the junior high curricula which could be individualized for testing. Some of the games used were: football, speedball, soccer, volleyball, basketball, baseball, tennis, and track and field events. Other activities used were: horseshoes, swimming, archery, stunts, tumbling, and exercises on the poles, ropes, side horse, buck, horizontal bar, horizontal ladder, parallel bars, and mats.

Criteria were derived from current tests and textbooks, and from subsequent results of actual tests given to junior high school classes. The set-up was adapted to the school year which is split into two semesters of three six weeks periods each. Student leadership has been used to administer the work.

O'Connor, John E. *A Study of the Trends, Developments, and Present Status of Special Methods in Social Studies*. June, 1936. (No. 255.) 119 pp.

PROBLEM. This study was undertaken with a twofold purpose: first, to determine the trends and developments in the social studies in regard to curriculum, methods, objectives, materials, and the teacher of the social studies; and second, to determine the present status of special methods courses in the social studies.

METHOD. In the first part of the study an analysis of the professional literature in the field was made to determine the outstanding trends and developments. In the second part of the study a questionnaire prepared by Mr. E. E. Ramsey was sent to teacher education institutions throughout the United States. The questionnaire consisted of four major divisions: (1) Section A, to be filled by the head of the education

department, (2) Section B, to be filled by the head of the social studies department, (3) Section C, to be filled by the supervising teachers in the laboratory schools, and (4) a special check list to accompany each of the above sections.

FINDINGS. The evolution of the social studies curriculum, although somewhat irregular, has always been forward and progressive.

Recent investigations reveal the fact that socio-civic efficiency is not stressed as a major objective of the social studies in representative schools throughout the United States.

The shift in objectives has necessitated radical changes in methods which in turn created a need for more elaborate equipment and better teaching.

The integration and concurrent offering of courses has been tried by very few institutions, although three-fourths of the supervising teachers favor this practice.

Textbooks are used as the bases for nearly all courses in special methods.

Supervising teachers are given very little part in the administration and teaching of special methods courses.

All special methods courses in the social studies were allocated to that department.

There were marked differences in the amounts of credit required for the highest grade secondary license in the social studies.

In the evaluation of the various items of content and special method courses 57.5 per cent were classified as fundamental; 40.4 per cent were classified as useful; and 2.1 of the items were classified as fundamental by the same number that classified them as useful.

Pruitt, Straussa V. *Indiana State Parks: Their Educational Contributions*. June, 1936. (No. 259.) 60 pp.

PROBLEM. A survey study of the Indiana State Park System in an attempt to determine its educational contributions.

SOURCE OF DATA. 1. Extensive reading on the objectives of education.

2. Printed materials of Indiana Conservation Department.

3. First hand visitations to all the state parks.

METHOD. Field study and historical method.

MAIN POINTS IN DEVELOPMENT OF THE PROBLEM.

Fundamental objectives of education.

Writers in all fields of education are recognizing the possibility that each pupil in school today faces the future with more leisure time than the pupil of any previous generation and are formulating objectives which can be translated more readily into life activities such as health, recreation, and worthy use of leisure.

The problem of this thesis is to show how the Indiana State Park Program contributes to the above mentioned educational objectives for school pupils and also contributes to the education of adults.

FINDINGS. The state parks offer one of the finest ways to make use of this new leisure. Here the city dwellers find the solace of quiet and solitude. In the same place the rural peoples find the pleasures of crowds and intercourse with strangers. The student

finds much to study in the flora, fauna, and geologic structure; the artist finds beauty; the young find the sports of swimming, hiking, fishing, riding, tennis, baseball, archery, and many others which certainly offer an opportunity to acquire good health and physical fitness. The beneficence of nature gives to each who comes what he wishes.

Through the state parks comes a strengthening of the common bonds of citizenship and neighborly association for in these parks the people meet upon common ground.

In conclusion it may be said of the Indiana State Parks that they build character, frugality, and industry by teaching the values of our great natural gifts, that they are social institutions whose formost object is to preserve our native scenery in its primeval glory for advancement of all the people.

Around The Reading Table

Schorling, Raleigh, John R. Clark, and Roland R. Smith. *Modern-School Algebra: First Course*. World Book Company, Yonkers-on-Hudson, New York, 1936. 464 pp.

All of the recent trends, tested by the actual classroom experiences of scholarly authors and by objective studies, are found in this text. These trends are modified in word presentation to come within the maturity level of the student. Nothing is taken for granted, intuitive algebra precedes formal work, and the basic principles and concepts are developed inductively and thoroughly. The complementary functions of use and meaning are in evidence throughout. The care in development and the abundance of varied drill results in establishing meaning by use and skillful use from clear meanings. The examination copy is unique. It points out exactly where tested educational principles are utilized in the selection, organization, and presentation of the material. Brief interesting essays are found in chapter introductions and summaries of natural units. They keep the student oriented throughout. He is led to see why algebra is studied and the significance and utility of specific materials presented. Provision is made for courses varying in difficulty and a specific minimum course is outlined. The function concept is emphasized at every opportunity and an important unit of analytic geometry is adapted to the ability of the student. This is representative of the modern spirit of the text, presenting supposedly advanced topics in such a manner that they are less difficult and more meaningful than much of the old traditional material. Problem solving is carefully taught by much practice in systematic methods. The text meets all of the requirements of the progressive teacher who is alive to the trends of the time.

—R. F. McDaid

Indiana State Teachers College

Howland, Ivalclare Sprow. *The Teaching of Body Mechanics in Elementary and Secondary Schools*. A. S. Barnes and Company, New York, 1936. 203 pp.

This book is an outgrowth of the requests made by students and teachers of health and physical education for guidance and direction in establishing a body mechanics program in the elementary and secondary schools.

The modern trend in education which deals with the "whole" child has caused physical educators to see the need for correct mechanical structure of the child. To insure a proper functioning mechanical

body, a program must be set up to cover the periods of child growth. The purpose of this book is to "present methods of presentation and suggestive source material applicable for each age group in the physical education program."

It assumes that the teacher has a background of theory of body mechanics and does not include it in the book; therefore, it cannot be substituted for a theory course, but it can be used to supplement that.

The material included may be used to make posture permeate throughout the grades. It can be made interesting and appealing to children. The application of posture principles is splendid.

Included in the book are chapters on teaching body mechanics as an educational procedure, examinations and classifications, interest motivators, projects, rhythmic activities, game and stunt activities, general exercises, units by grades on feet, head, chest, back, abdomen, fatigue, rest and relaxation. Suggested lesson plans for grades from one to twelve are given. An original health play and a good bibliography are included.

—Mary Fread

Indiana State Teachers College

Studebaker, John W. *Plain Talk*. National Home Library Foundation, Washington, 1936. 166 pp.

Morse A. Cartwright, director, American Association for Adult Education, has written the foreword for *Plain Talk*. He says, "In this volume Dr. Studebaker's advocacy of adult education takes the form of a dynamic plea for the extension of the idea of public forums." The book is devoted to Dr. Studebaker's plea for the adult education plan outlined by him therewith.

Dowell, Anita Shemwell. "The Physical Disability of Teachers in the White Elementary School of Baltimore, Maryland." *The Johns Hopkins University Studies in Education*, No. 24.

Dougherty, J. W., F. H. Gorman and C. E. Phillips. *Elementary School Organization and Management*. The Macmillan Company, New York, 1935. 453 pp.

This book was written by three educators who are directly connected with the problems of the elementary school. One is supervisor of elementary education in the public schools, while the others are principal and director, respectively, of an elementary school in a state university.

The scope of the book is extensive, including such topics as "The Evolution of

Education and the American Public School," "Constructing the Daily Program," "Pupil Management and Control," "Classification and Promotion of Pupils," "Administration of Records and Reports," and "The Teacher's Relationships."

Some topics not frequently included in a book of this character are "The Elementary School Library," "The Elementary School Assembly," and "Program of Health Education." These chapters are handled especially well.

While tests and measurements are treated in a special course in many colleges, the authors believe that such material should be included in an integrated course in management; consequently, several chapters are devoted to technical instruction on tests and measurements. Chapters on principles and technique of teaching might well replace these, thus insuring the fulfillment of a more general need.

One of the best features of the book is the wealth of up-to-date illustrative material on each problem considered, an example being the fine collection of sample record and report forms.

Without doubt, the book will prove to be a valuable handbook to prospective teachers, to teachers in service, and to principals and supervisors of the elementary school.

—Fay Griffith

Indiana State Teachers College

Waterman, Elizabeth. *The Rhythm Book*. A. S. Barnes and Company, New York, 1936. 150 pp.

This book is one of the most challenging of the many new books dealing with rhythm to be published recently. The author states her method of approach clearly in her preface when she dedicates her book to the teacher of music, drawing, dancing, and dramatics in the pre-school, kindergarten, and elementary school who is interested in bridging the interdepartmental barriers which prevent a natural unity in the child's understanding of rhythm. In developing a comprehension of rhythm there are three stages she says: "The first stage is one of bringing into awareness the rhythmic variations of the most familiar everyday movements. The second stage is one of extending that awareness to less familiar movements and giving it greater rhythmic variation. The third stage is one of application of rhythmic movement to materials of various media of expression." How she approaches her problem is best illustrated by characteristic chapter headings: Rhythmic Movements, e.g., walking, running, bending and stretching, tip-toeing, swinging and swaying, jumping, turning and twisting, galloping and sliding; From Rhythmic Movement to Rhythmic Patterns; Vocalization and Movement;

Drawing and Movement; Modelling and Movement; Musical Accompaniments.

The book is most attractively put together. Twenty-one illustrations, a well-chosen bibliography, and fifty-four pages of music greatly enhance its value as a practical aid to teachers.

—Florence M. Curtis

Indiana State Teachers College

Melvin, A. Gordon. *The Activity Program*. Reynal and Hitchcock, New York, 1936. 270 pp.

This book is a sequel to the author's earlier books on progressive teaching. It comes after a period of experience with the activity curriculum, when there is need for an evaluation in which terms are clarified and practical suggestions are offered for development. That is the function of this book.

The plan of the book is "to outline an approach which will enable children to fulfill their lives and in so doing enrich the lives of their fellow men." Certain chapter headings, for example, Chapter III, "The Matrix of School Life," Chapter IV, "The Organic Nature of School Experience," and Chapter IX, "Realms of Learning," illustrate the terminology used and the topics discussed.

It is the philosophy of the book that the chief goal of education is the building of personality. This goal will be accomplished if the teacher conceives the matrix of school life, defined as "that fabric or flux of living that is the normal state of affairs of any group of people who are living and acting together," to be the basis for the organic nature of school experience, and selects the "realms" or "themes" of learning in accord with these factors.

The reviewer feels that the value of certain of the illustrative units and techniques might be questioned by the criteria of permanent values. For example, building a play "animal school" from paper in the first grade and learning addition combinations to have the most cattle, or "dogies" or "yearlings in the round-up" when the realm being studied was "Life on a Cattle Ranch" seem questionable. Despite these minor criticisms, the book will be of value to curriculum makers, to teachers, and to supervisors because of its thoughtful analyses of problems, its provocative statements, its concreteness, and its bibliography of current references.

—Mary D. Reed

Indiana State Teachers College

Cozens, Frederick W., Martin H. Trieb, and N. P. Neilson, *Physical Education Achievement Scales for Boys in Secondary Schools*. A. S. Barnes and Company, New York, 1936. 155 pp.

This volume of achievement scales is the second publication in a series of five studies designed to supply scientific measuring devices for a variety of activities at every grade level in school.

The first volume (*Achievement Scales in Physical Education Activities for Boys and Girls in Elementary and Junior High School, 1934*) set out standards for the junior high school boys and girls and provided a notable contribution to the current progress in standardized measurement.

In the latest volume of scales and testing procedures the authors have developed standardized scoring scales for secondary school boys.

These volumes are without doubt the most scientific studies of measuring procedures and scales for physical activities ever completely presented in the form of a book. The authors are especially qualified to work out such studies since they have a background based on years of study and practice in the development of the testing movement.

This book is divided into two parts. Part I provides the classification scheme and a description of the testing procedure for each of the forty-five events. Part II presents the achievement scales and a scholarly discussion of the technique used in their construction.

The section on testing procedures includes every detail for conducting the events such as materials and supplies needed, a description of each test, the rules, teaching suggestions, and practice events. These details are so thoroughly presented that there is practically no chance for any variation in the standardized technique prescribed for each of the events. One does not need a background of tests and measurements to understand the procedures for conducting and scoring the events because the procedures are described so clearly that even the novice in measurement may set up an accurate objective organization of the scales for a testing program.

The forty-five events which are described and scaled in the book are the core of a great mass of related activities and embrace to a large extent the elements of the games in our modern physical education curriculum.

The student of tests and measurements will be especially interested in the discussion of the classification plan and the research and clinical technique used in the construction of the scales which is described in the last chapter. The scales are based on a carefully worked out index of age, height, and weight and this best fit index, as the authors call it, imparts a scientific classification scheme for placing students into comparable groups.

Every physical education teacher should read these books for by doing so he

will be better able to set up objective measures for rating and grading his students.

—Raymond E. Sparks
Indiana State Teachers College

Webster, Edward Harlan. *Good English Through Practice: Books I, II, and III*. World Book Company, Yonkers-on-Hudson, New York, 1936. 214 pp., 214 pp., 196 pp., respectively.

There are three books in this series, each of the second two based upon the previous book. Their purpose is to arouse in pupils an interest in language and, through try-out tests, competitive drills, games, and tournaments, to awaken a spirited attitude toward the uprooting of bad language habits by substituting good English practice; to build upon this awakened interest and to insure, through diagnostic and achievement tests, drills, and practice exercises, the correct use of expressions, the wrong forms of which are constantly employed by pupils in their daily speech and writing; to continue development of correct language habits and to emphasize sentence structure.

Norton, John K., and Margaret Alltucker Norton. *Foundations of Curriculum Building*. Ginn and Company, Boston, 1936. 570 pp.

The authors, in the preface, state: "This publication is the culmination of a project upon which the authors have worked over a period of ten years. It brings together from many sources materials most pertinent to curriculum building at the elementary-school level. It takes account of varying theories of curriculum building, presents a practical synthesis of research findings, and draws upon the results of advanced practice."

Keppel, Frederick Paul. *Philanthropy and Learning With Other Papers*. Columbia University Press, New York, 1936. 175 pp.

No better idea of what is in this pleasing book can be given than the author's own preface which is quoted herewith:

"A foundation executive lives in a cultural No Man's Land. He has neither time to be a scholar nor opportunity to be a teacher, assuming that he is qualified to be either. On the other hand, from the the nature of his calling he is exposed to a wide, perhaps a unique, variety of contacts with social, scientific, and educational matters; and from time to time he is called upon to speak or write upon such matters from the particular angle of his own relation to them. The responses to certain of these calls within the past nine years have been brought together in this book, which makes no pretense of being more than an attempt to set forth some of the

experiences which have come to the writer in the administration of a trust dedicated to the advancement and diffusion of knowledge and understanding."

Ayer, Fred C., E. E. Oberholtzer, and Clifford Woody. *Modern-Life Speller, Books I, II, and III*. World Book Company, Yonkers-on-Hudson, New York, 1936. 128 pp., 106 pp., 104 pp., respectively.

"The *Modern-Life Speller* is the result of a systematic attempt to organize a text in spelling upon seven guiding principles of spelling instruction: 1. selection of basal words; 2. enrichment of basal words; 3. adaptability to the needs of individual pupils; 4. motivation of pupils' interest; 5. self-activity of pupils; 6. unification of spelling with the pronunciation, understanding, and use of words; 7. adjustment to local school environment."—Preface.

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